The Journal OF THE FLORIDA MEDICAL ASSOCIATION

Vol. XXXVIII JANUARY, 1952 No. 7

UNIVERSITY OF MICHIGAN
JAN 13 1952
MEDICAL LIBRARY

IN THIS ISSUE

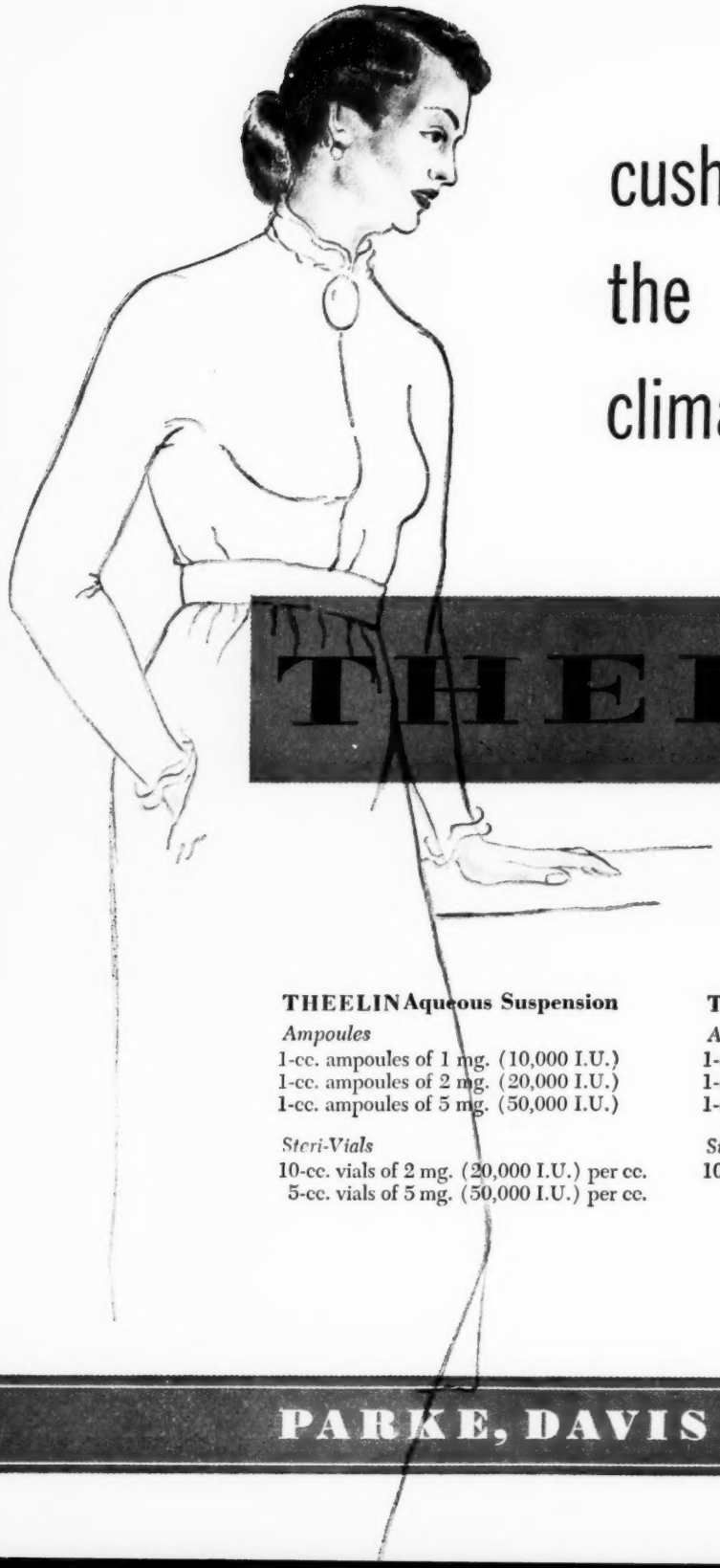
Cancer Cytology
J. Ernest Ayre

Cataract Surgery
Joseph W. Taylor, Jr.

Stress and General Adaptation Syndrome
Joseph G. Seltzer

January Anniversaries
An Editorial

OFFICIAL PUBLICATION OF THE FLORIDA MEDICAL ASSOCIATION



cushions
the
climacteric

THEELIN®

THEELIN Aqueous Suspension

Ampoules

1-cc. ampoules of 1 mg. (10,000 I.U.)
1-cc. ampoules of 2 mg. (20,000 I.U.)
1-cc. ampoules of 5 mg. (50,000 I.U.)

Steri-Vials

10-cc. vials of 2 mg. (20,000 I.U.) per cc.
5-cc. vials of 5 mg. (50,000 I.U.) per cc.

THEELIN in Oil

Ampoules

1-cc. ampoules of 0.2 mg. (2,000 I.U.)
1-cc. ampoules of 0.5 mg. (5,000 I.U.)
1-cc. ampoules of 1 mg. (10,000 I.U.)

Steri-Vials

10-cc. vials of 1 mg. (10,000 I.U.) per cc.

PARKE, DAVIS & COMPANY

THEELIN, (ketohydroxyestratriene) the first estrogen to be isolated in pure crystalline form and the first to assume clinical importance, is invaluable for alleviating the distress of the menopause and other estrogen deficiency states. A naturally-occurring estrogen, THEELIN relieves symptoms promptly *and* imparts a sense of well-being. Moreover, its notable freedom from side effects has long been familiar to physicians everywhere. Over two decades of clinical use and more than 400 references in the literature attest to its effectiveness.

The physical properties of THEELIN — solubility in oil and insolubility in water — have been utilized to prepare forms for administration that facilitate versatile therapy. THEELIN IN OIL is rapidly absorbed from the injection site. Absorption of THEELIN AQUEOUS SUSPENSION is slower and more sustained; the therapeutic effect, therefore, is produced over a longer period of time.

Both THEELIN IN OIL and THEELIN AQUEOUS SUSPENSION are available not only in individual ampoules, but also in Steri-Vials® for greater economy.

THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

Volume XXXVIII **JANUARY, 1952** **No. 7**

CONTENTS

SCIENTIFIC ARTICLES

The Role of Cancer Cytology in Medical Practice, J. Ernest Ayre, M.D. 471
Esophageal Hiatal Hernia Associated with Myocardial Infarction, Walker Stamps, M.D. 474
Absorbable Postplaced Sutures in Cataract Surgery, Joseph W. Taylor, Jr., M.D. 479
Stress and the General Adaptation Syndrome or the Theories and Concepts of Hans Selye, Joseph G. Seltzer, M.D. 481
Aerobiologic Survey of the Miami Beach District, Report of Pollen Counts for 1948 and 1949 Including Mold Spore Counts for 1949, Lewis Palay, M.D. 485
Changes in Compensation Law, Herschel G. Cole, M.D. 488

ABSTRACTS OF MEDICAL ARTICLES

Drs. Robert W. Curry, Joseph S. Stewart, Frederick J. Waas, Bernard J. McCloskey, Thomas M. Edwards and Louis Lemberg 490

EDITORIALS AND COMMENTARIES

January Anniversaries 494
The Challenge of 1952 495
Eyes Urgently Needed 496
Accreditation of Hospitals by Four Group Commission 496
California Takes Heed 497
School of Cytology 497
Student American Medical Association Journal 498
Regional Meeting of American College of Physicians 498
New Doctor Draft Interpretations 498
Medical Stockpile Program Lagging 498
New Plaque for Your Office 499
Graduate Medical Education 499

GENERAL FEATURES

Officers and Committees 492
State News Items 500
Medical Officers Returned 503
Births and Deaths 503
New Members 503
Wanted — For Sale 503
Component Society Notes 503
Obituaries 504
Woman's Auxiliary 508
Books Received 509
Schedule of Meetings 517

This Journal is not responsible for the opinions and statements of its contributors.

Published monthly at Jacksonville, Florida. Price $5.00 a year; single numbers, 50 cents. Address Journal of Florida Medical Association, P. O. Box 1018 (Fla. Theater Bldg.), Jacksonville 1, Fla. Telephone 6-1571. Accepted for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918. Entered as second-class matter under Act of Congress of March 3, 1879, at the post office at Jacksonville, Florida, October 23, 1924.

THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION
PUBLISHED MONTHLY

Volume XXXVIII Jacksonville, Florida, January, 1952 No. 7

The Role of Cancer Cytology in Medical Practice

J. Ernest Ayre, M.D.
MIAMI

I appreciate the opportunity of presenting a new prospect for cytodiagnosis in the hands of the family doctor to further the control of cancer.

It is difficult to find early cancer and easy to cure it. It is easy to find late cancer but difficult to cure it. This situation has been a strong retarding force in the inability of the medical profession to diminish the ravages of malignant disease.

Cytology is bringing about a changing concept of cancer control. The cell method offers earlier diagnosis of many types of cancer than has ever been possible before. Cytology has consistently been kept subservient to histologic methods. The cytologic method is not offered as an alternative to the biopsy method but rather to complement it. If either method alone will give 90 per cent accuracy, the combination of the two methods will give 99 per cent accuracy. Many pathologists are interested in and desirous of furthering cancer diagnosis. Unfortunately, there are too few pathologists. They are already overworked and they are naturally appalled at the time required for screening and cytodiagnosis. The answer to this problem lies in the training of large numbers of cytotechnologists (nonmedical screeners) to work in collaboration with pathologists or cytologists in regional cytology centers.

Recently, a national organization of cytology has been formed under the leadership of Arthur Purdy Stout in New York. While a number of cytology centers are already developing in scientific medicine, others are needed. In New York, under Papanicolaou at Cornell, a large cytology center is being developed in collaboration with Memorial Hospital and the City of New York. In Duke University, under the sponsorship of Dr. Carter and Dr. Cuyler, the cytologist, a particularly active program is under way. In Philadelphia, under Dr. Sheffey and Dr. Rakoff, an active program for more widespread screening by the cytologic method is under way. It is our hope to set up a cytology center in Florida at the Dade County Cancer Institute which will render cytodiagnosis equal to that of other leading cytology centers already in existence. The national cytology organization has unanimously endorsed regional cytology centers which will make available to the family physician cytologic service as a part of the general health check-up of patients in the doctor's office. No matter how remote the doctor may be from the cytology center, the specimen for the test may readily be mailed in to the center for efficient screening and diagnosis, and many early and curable cancers will be found as a result of more frequent testing.

A recent article in the Reader's Digest stressed the importance of the role of the family doctor. As far as it went it was excellent, although it did not say exactly how the doctor was going to find early cancer, which is not too easy a problem to solve.

Cancer of the stomach or bowel cannot be diagnosed early enough for frequent cures today. In the doctor's office skin cancer may be searched for and frequently found curable. Similarly, cancer of the breast may be frequently found by physical examination, but with the utilization of the cytotest for cancer, such common cancers as those of the uterus, the lung, the prostate, the tongue, the bladder and the kidney may be diagnosed at an early stage and better hope for cure held out. The

Read before the Florida Medical Association, Seventy-seventh Annual Meeting, Hollywood, April 23, 1951.

use of cytology puts "teeth" into the program of making the family doctor's office a cancer detection center.

It is good medical practice to advise all persons over 40 to have a routine health examination once a year. It should be advised that all women over 30 or 35 have a routine cervical cytologic test as part of this health examination. In men, whenever there is an obscure pulmonary lesion or doubtful roentgen evidence, cytologic examination of the sputum should be utilized. Similarly, if there is suspicion of cancer of the stomach or prostate, cytologic tests may be used as an adjunct to the physical examination by the physician in his office.

Cytologic Examination of the Sputum

In the lung cytologic examination offers the earliest form of diagnosis of cancer. Macdonald of the Mayo Clinic stated that there are many inmates of sanatoriums actually suffering from pulmonary cancer and advocated more or less routine examination of the sputum for cells which may lead to earlier diagnosis in these cases. Ochsner advocated that persons who have had virus pneumonia should have the sputum examined in subsequent years. Most opinions suggest that smoking increases cancer of the lung. In any case, it is surprising to note the increased frequency. In men, pulmonary cancer is equal to and in many series more frequent than gastric cancer today.

Regarding collection of sputum, it is simply necessary to have the patient spit into a bottle of alcohol, and this sample may be mailed to the center. Three separate specimens on successive days are advised in order to permit adequate search of the specimens.

Uterine Cancer

In two departments the cytologic method is superior to all other methods in the detection of early cancer. One of these is the lung, which has been discussed. Second is the uterus and cervix. At the present time some 26,000 women die annually from uterine cancer in America. The majority of the lesions arise from the cervix, the neck of the womb, and in this type of cancer, the chances are better than in any other for detection of the cancer while in the preclinical and unsuspected stage. Twenty thousand could be saved. You would be surprised if I told you that if you have a gynecologic practice and were to take a routine cell scraping from the cervix on the next 100 women who pass through your office, you would find 1 of these to be harboring an incipient cancer which today can be cured in your hands. Yet this is precisely the situation which I have found in screening programs on groups of apparently well patients or at least patients free of clinical evidence of malignant disease.

In the past, abnormal bleeding or a suspicious ulceration was the first indication for biospy of the cervix. It is for this reason that early curable cancer was not commonly found. Today the situation is radically different. The routine testing of cervical cytologic specimens in women over 30 or 35 as part of a health examination should offer a means of almost complete control of this type of cancer. As such screening programs become more complete, clinical (late) cancer of the cervix should disappear in the population and only carcinoma in situ would be found. This happy situation could be brought about in a period of four or five years in a city like Miami if routine testing of the cervical cells by the physician became the rule. In other words, practically all such cancers would be found when curable.

Here is a case which illustrates how efficiently a cervical cell test mailed from the doctor's office might have saved the patient's life. The physician states: "In April 1948 I took a cervical smear on a 40 year old patient and sent it into your laboratory, which reported positive cells. I did multiple biopsies from the cervix and sent them to the government tissue laboratory, which sent back a negative report. The patient returned to my office in 1950. I took another test of the lesion, nodular to the touch and showing ulceration around the cervix. The repeat test was again positive, but the cancer by this time was evident clinically, and the patient has been referred to the Ottawa Cancer Clinic for radiotherapy. I asked how long malignant cells could be present before being detected clinically. The lesion here was not found in the tissue search two years before, although the cytotest was positive. Two years were lost and perhaps the patient's life." This case illustrates that one must not be satisfied with a single negative biopsy when positive cytologic reaction is demonstrable. Complete and adequate surgical biopsies must be sought in order to safeguard the patient's welfare.

Research

Cytologic research is of great importance in the human cervix. The origin of epidermoid cancer is known to be at the squamocolumnar junction. The cell scraping, the surface cell biopsy, from this area using the spatula offers a technic of detecting carcinoma in situ with great regularity. In addition, however, the type of anaplastic cell, which has been called the "precancer cell-complex" offers a problem for research. Cell behavior studies have been made to determine whether this type of cell invariably is followed by cancer or whether regression may occur.

Similarly, research offers an opportunity to experiment directly upon this precancer cell in an effort to determine whether chemotherapeutic agents or antibiotics may be found which will cause the cell to heal or revert to normal. If this objective can be achieved, then it will point the direction for a similar attack upon the full-blown cancer cell. We have already achieved initial success in this field of research. Aureomycin has shown an important effect upon the "precancer cell-complex." It is our plan to develop this important lead on an expanded research basis in our new Cancer Cytology Center at the Dade County Cancer Institute and the Medical Research Foundation of Dade County. We do not understand what is happening or why, but the fact that these anaplastic precancer cells suddenly disappear from the surface cell biopsy after previously being present for one to two years suggests an important effect. We are developing a team of cytochemists and biochemists to correlate the clinical and cytologic manifestations in this type of disease.

Confirmation of the specific character of cells of the "precancer cell-complex" type reported by our group at McGill University in 1947 has recently come from a number of European centers, one in particular from Amsterdam, Holland.

In the field of training and education, it is planned in the cytology center in Florida to train doctors who wish to study to become cytologists and technicians who desire to master cytologic screening. Since this is a focal point for the Caribbean and South American area, it is anticipated that many of those who have shown keen interest in cytology will be attracted to this new training center. There is a great scarcity of well trained cytologists and cytotechnologists, and only when this deficiency is corrected will widespread cytologic screening be possible in all parts of the world.

The advantage of the regional cytology center program of cancer detection is that the doctor keeps his own patient, takes the specimen for the test in his office and mails it to the center. Cancer presents the greatest challenge to the physician to find and protect his patient from this most deadly of diseases. It is also true that the patient prefers to remain under the care of the physician of his choice.

An excellent suggestion was made by a prominent surgeon of Miami. He proposed testing the wives of doctors thoroughly for cancer every year and giving them a careful physical examination. Over a period of years this experiment would constitute important research and set a fine example for other women.

In cytology centers screening for cancer will soon parallel screening for tuberculosis in the various antituberculosis programs which have proved most successful in curbing the ravages of this disease.

The screening in industry of well patients provides a highly promising prospect. In an early group which we tested, in some 500 consecutive cases 5 curable cancers were found. In the nurse in charge of one industrial group there was found an unsuspected early invasive cancer of the cervix, still curable.

Modus Operandi

The Cytology Center of the Dade County Cancer Institute is now ready to offer diagnostic service to physicians of the area. Its program is supported by pathologists and endorsed by the Dade County Medical Association. The many highly trained physicians and specialists already in the Miami area are focusing attention upon this coming medical center where sick persons can secure both a healthy climate and expert medical care. It is no longer necessary for seriously ill patients to travel to distant clinics in New York or elsewhere to obtain the services of specialists.

The training and research program in this new field adds another special field of endeavor to medical training, as Miami, the focal point of the Pan-American area, assumes increasing stature as a center of medical training and education. It is to be hoped that it will assume a leading role in this new field, just as it has already taken the lead in many other specialties.

1155 N.W. 14th Street.

VOLUME XXXVIII
NUMBER 7

Esophageal Hiatal Hernia Associated With Myocardial Infarction

WALKER STAMPS, M.D.
JACKSONVILLE

Esophageal hiatal hernia presents no characteristic clinical picture and readily simulates a variety of gastrointestinal, respiratory and cardiac diseases, one of which is myocardial infarction. This anomaly has been reported with increasing frequency in the literature in recent years, but its role of mimic can hardly be stressed unduly. Described by Harrington[1a] as the "masquerader" of the upper part of the abdomen, it may be particularly deceptive when it occurs with cardiac disease. Since both are associated with advancing years, their occurrence together is doubtless not as unusual as it might seem. The case reported here illustrates the confusing similarity of the manifestations of esophageal hiatal hernia and myocardial infarction when these disorders occur concomitantly.

Incidence

Diaphragmatic hernia was diagnosed in 650 patients at the Mayo Clinic from 1926 through 1939.[1b] It doubtless occurs more frequently than reports would indicate, for some patients are asymptomatic, others with symptoms are not subjected to roentgen examination, and in still others the hernia may not be demonstrable by this method at the particular time.

Herniation of the stomach through the esophageal opening in the diaphragm is a disease of middle and later life, rarely present before the fourth decade, but occurring typically after 50 years of age. In the light of senile degenerative changes which result in loss of elasticity and insufficiency of the hiatal tissues, the average age of from 54 to 57 years is understandable.[2a] Hurst[3] cited Schatzke as inducing hiatal herniation in 70 per cent of patients more than 60 years old simply by using greater than normal intra-abdominal pressure during gastrointestinal fluoroscopy. In the series of 110 cases of esophageal hiatal hernia recently reported by Clerf, Shallow, Putney and Fry,[4] the ages ranged from 29 to 78 years; 78 patients were between the ages of 50 and 70, 40 patients were between 60 and 70, and only 7 patients were less than 40 years of age.

In this series there was no significant sex predilection. Of the 110 patients, 59 were women and 51 were men.

Etiology

Diaphragmatic hernias may be either of traumatic or nontraumatic origin. The nontraumatic type may also be classified as congenital, being present at birth, or acquired, developing through a congenitally weakened or deformed diaphragm.[1,5]

Senile degenerative changes in the diaphragmatic musculature may cause weakening and widening of the esophageal hiatus. The abnormal stress incident to frequent or prolonged coughing may stretch and tear the tissues of this orifice, as may retching and vomiting. Also, the increased abdominal pressure from obesity may induce herniation, notably when there is a muscular abdominal wall. Less frequently, ascites and large tumors may be etiologic factors.[2a] Esophageal hiatal hernia was present in 18 per cent of the 195 pregnant women in a series of cases reported by Rigler and Eneboe,[6] and in 3 of 10 of these patients examined after delivery, there was still evidence of herniation.

The association of hiatal hernia with other pathologic conditions of the upper part of the abdomen, such as cholelithiasis, is noteworthy. In a study of duodenal diverticula, Weintraub and Tuggle[7] noted its presence in 9 per cent of the cases in contrast to 2.4 per cent of a large number of control cases. In Gilbert's series, there was concomitant abnormality of the upper part of the abdomen in 42 per cent, and diverticulum of the esophagus was present in 10 per cent.[2a] The etiologic relationship, however, if any, remains problematic

Suggesting a viscero-visceral reflex and confirming earlier animal experimentation with faradic stimulation of the vagus, Gilbert, Dey and Rall[2b]

demonstrated that the traction of the shortened esophagus will pull the stomach up above the diaphragm. In addition, they induced a reflex shortening of the esophagus which duplicated the results of electrical stimulation of the vagus merely by handling the liver, by dilating the gallbladder or the cystic duct, or by stretching the walls of the stomach.

Emotional factors, nervousness and fatigue have been mentioned as causative agents.[2] Citing illustrative cases, Gilbert[2a] concluded that nervous influences alone, entirely aside from viscero-visceral reflexes, can be the determining factor in a type of hernia caused by traction from above through an esophagus shortened by these influences. Reduction of the hernia has been many times demonstrated when the emotional stress is alleviated. The therapeutic relief with atropine offers further evidence for this mechanism.

Symptoms

Although symptoms may begin in childhood when the hernia is congenital in origin, they most frequently become apparent in the sixth decade since the hernia has a tendency to become larger as the patient grows older. In the series reported by Clerf and his associates,[4] dysphagia and pain were the outstanding primary symptoms, followed in the order of frequency by indigestion, regurgitation, lodgment of food, hemorrhage, weakness, loss of weight and hoarseness. Many patients had several complaints, including vomiting and coughing, with dysphagia and pain taking precedence; some were symptomless. Other authors mentioned, in addition, severe dyspnea, anemia, and palpitation.

Dysphagia is encountered with both liquids and solids, but solid foods commonly cause the most distress, necessitating the ingestion of small amounts of food at frequent intervals. The pain is variable in character, location and extent. If in the chest, it may be precordial or may radiate upward in the shoulder even to the throat or jaw, or downward into the abdomen. Epigastric pain may follow ingestion of food, especially a heavy meal, and may be relieved by belching or vomiting. The duration of the pain may vary from a few minutes to hours. The attacks, mild at first, increase in frequency and severity as the stomach becomes fixed by adhesions in the thorax.[4]

The patient usually discovers that lying down aggravates the symptoms, while sitting or standing affords a measure of comfort. The trapping of air in the herniated portion of the stomach with spasm at the hiatal orifice causes a sensation of fullness and gaseousness with inability to belch. There is no constant correlation of symptoms to the size of the hernia. Haft and Adler[5] concluded: "In general, the symptoms will depend on the degree of mechanical interference with the function of the herniated viscera; on interference with the function of the diaphragm; on the amount of increased pressure in the thorax causing impairment of the circulation and respiration; and on the severity of anemia."

Diagnosis

On clinical grounds alone, the diagnosis is exceedingly difficult and therefore is frequently missed. Roentgenography and esophagoscopy are the available means for diagnosis, and both should be employed as the one supplements the other. Stenosis, which may consist of a funnel-like narrowing, an abrupt constriction, or a weblike stricture, is determined equally well by either method.

Views from many angles, including the Trendelenburg position, are required to determine roentgenologically the position of the lower end of the esophagus. In order to outline the esophagogastric junction in relation to the diaphragm, roentgenograms made with the patient in the recumbent position are frequently necessary, for in reducible hernia the stomach may assume a thoracic position only when the patient is lying down. Demonstration of gastric rugae above the level of the diaphragm establishes the diagnosis.[4]

The criteria for esophagoscopic diagnosis, as described by Clerf and his associates,[4] include anatomic demonstration of a portion of stomach above the diaphragm, relaxation of the esophageal mucosa and absence of the normal "pinchcock" action at the hiatus. In the experience of these authors, this method was superior to roentgenography in determining the presence of ulceration.

Vague, indeterminate symptoms in the upper part of the abdomen or lower part of the chest should suggest esophageal hiatal hernia. The pain may occur soon after retiring, appearing earlier than the pain associated with ulcer. Increased intra-abdominal pressure from whatever cause may precipitate an attack, and reduction of this pressure by belching or passing flatus, or following an enema, brings relief. Among other diagnostic points mentioned by various authors is aerophagy, for the distention of the stomach by air may reduce the hernia by pulling it down out of the hiatal orifice.[2a]

Differential Diagnosis

Errors in diagnosis are frequent and vary widely. In a series of 404 cases of esophageal hiatal hernia in which the patient was operated on by Harrington,[1a] an average of three erroneous clinical diagnoses had been made prior to establishment of the correct diagnosis. Exclusive of those cases in which multiple lesions were present, there were 35 in the series of 110 cases reported by Clerf and his associates[4] in which there were errors in previous diagnosis. In the order of frequency these included carcinoma, achalasia, duodenal ulcer, coronary thrombosis, cholecystitis, gastric ulcer, indigestion, foreign body, esophageal diverticulum, gastrointestinal hemorrhage, anemia and multiple diagnoses. Among other common errors are cholelithiasis, hyperacidity, cor pulmonale, stricture of the esophagus, appendicitis, intestinal obstruction, mediastinal tumor and hydropneumothorax. In a number of recorded instances tuberculosis had been diagnosed, with treatment carried out for long periods of time in some cases; in 1 such case the correct diagnosis was finally made when an attempted aspiration of the chest produced gastric contents.[5,8]

It is obviously important to differentiate cardiac disease from hiatal hernia. Particularly when surgical procedures are under consideration, a mistaken diagnosis of disease of the coronary arteries presents a serious problem. In order to rule out cardiac disease which might contraindicate surgical repair, the cardiologist must keep in mind this simulation.[4] An illustrative case is that of a 38 year old man which terminated fatally following perforation of an ulcer in the herniated portion of the stomach; operation had been delayed too long because of suspected myocardial infarction.[9] Hiatal hernia should be suspected when there is a history of coronary thrombosis, anginal pain or paroxysmal auricular fibrillation, especially if posture appears to be a precipitating factor.[2a,10a] Gilbert[2a] favored roentgen investigation in every case of angina pectoris if the patient's condition permits, and also in cases of coronary thrombosis if and when the condition of the patient warrants such an examination without interference with the treatment of the cardiac infarction.

In the case reported by Haft and Adler,[5] herniation of the entire stomach into the thoracic cavity perfectly mimicked left ventricular failure. In Reid's case,[11] the correct diagnosis was greatly delayed because of simulation of cardiac infarction. Beckh and Huffman[12] stressed the importance of diaphragmatic hernia in the differential diagnosis of disease of the coronary arteries, and Moschcowitz[13] reported the simultaneous association of this abnormality and coronary disease.

Occurrence of the symptoms at the time of life in which disease of the coronary arteries is prevalent adds to the difficulties of differential diagnosis. Precordial pain radiating to the left shoulder and down the left arm may be the only presenting symptom. Harrington[1c] was of the opinion that this pain is caused by reflex constriction of the coronary arteries mediated through the vagus. On the other hand, Jones and Chapman[10a] held that the pain is mediated over the visceral afferent fibers supplying the esophagus and the cardiac and fundic portions of the stomach or over the sensory afferent fibers from the diaphragm, contained in the phrenic or middle or lower thoracic nerves. They concluded that overdistention of the lower end of the esophagus or herniated portion of the stomach may cause typical anginal pain and cited experiments in which such pain was produced by distention of the esophagus with balloons. Attacks of paroxysmal auricular tachycardia may also be the initial complaint.

A definitely abnormal electrocardiogram has some diagnostic value, but a normal one does not exclude angina of coronary origin. The recumbent position may increase the discomfort of the hernia, but may give relief in angina pectoris. Too, exertion is not so constant a precipitating factor as in disease of the coronary arteries. One third of the patients in Jones' series,[10b] stated that pain was initiated by exertion, but not constantly; a like number obtained relief with nitroglycerin, but in no case as regularly as in true angina of coronary origin.

Report of Case

M. B., a vegetable merchant, was in 1941 at the age of 38 rejected for life insurance because of hypertension at a level of 160 systolic and 110 diastolic. In August 1946, while swimming in the ocean, he experienced sudden sharp, shooting pains in the neck and arms, radiating into both palms and to the finger tips. Since that time, there has been an almost constant painful tingling sensation in the arms and hands, aggravated by use of the arms and interfering with sleep.

In January 1947, a diagnosis of adhesive arachnoiditis involving the cervical portion of the spinal cord was made at the Lahey Clinic. He was unenthusiastically offered and declined a lumbar sympathectomy as possible relief for his hypertension, which at that time was usually in the range of 200 systolic and 120 diastolic.

Except for the neurologic disturbance, the patient remained well and actively at work for two and a half years. On July 31, 1949, he was admitted to St. Vincent's Hospital suffering from severe pain in the chest of six hours'

duration. The pain, which had awakened him from a sound sleep, was compressing in nature and radiated down both arms to the wrist. Profuse perspiration and moderate nausea occurred, but no vomiting.

On physical examination, he appeared acutely ill and in severe pain. The lungs were clear, and there was normal cardiac rhythm. The blood pressure was 124 systolic and 80 diastolic. An electrocardiogram presented a typical pattern of anterior myocardial infarction (fig. 1).

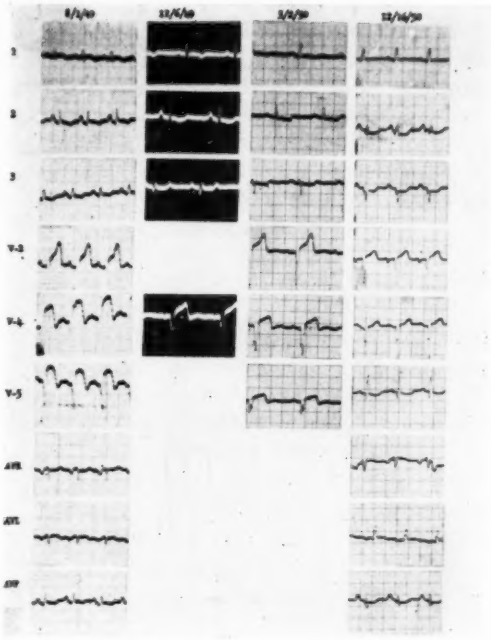


Fig. 1. — Serial electrocardiograms show a typical pattern of anterior myocardial infarction.

Examination of the blood revealed a white blood cell count of 15,300 with 87 per cent neutrophils, 11 per cent lymphocytes and 2 per cent monocytes. Urinalysis showed albumin 1 plus. The sedimentation rate was 112 mm. per hour, subsiding to 16 mm. after eight days.

The patient was placed in an oxygen tent and given injections of morphine to relieve the pain, which persisted intermittently for two days. From the second to the sixth hospital day there was elevation of temperature, the maximum ranging from 100 to 101 F. The remainder of the four week period of hospitalization was relatively asymptomatic, with the exception of a severe attack of urticaria.

On discharge, a roentgenogram of the heart, taken at 6 feet, demonstrated approximately 20 per cent enlargement, especially in the region of the left ventricle (fig. 2).

After two months' convalescence, he again returned to work and remained well until December 12. At that time he again experienced severe pain in the anterior portion of the chest, radiating to both arms and the neck. He became nauseated and vomited his evening meal.

On readmission to the hospital one hour after having vomited about 1 pint of dark blood, he was apprehensive, weak, perspiring freely, and writhing about in bed despite efforts of attendants and members of the family to quiet him. The white blood cell count was 9,400, with 70 per cent neutrophils, 1 per cent eosinophils, 1 per cent basophils, 17 per cent lymphocytes and 1 per cent monocytes. The following day he began hiccoughing continually and continued to do so for five days, until bilateral injection of the phrenic nerve with novocain was performed.

Roentgen study of the upper portion of the gastrointestinal tract revealed a constant deformity of the lower part of the esophagus and of the cardia (fig. 3), which was attributed to carcinoma. Esophagoscopy gave the same clinical impression of malignant disease. The section removed for biopsy from the lower one fourth of the "esophagus," however, was composed of gastric mucosa and benign inflammatory tissue. Following the esophagoscopy, there was prompt relief of distress in the chest, and no filling defect could be demonstrated in the esophagus and the cardia on repeated roentgen examination. A diagnosis of esophageal hiatal hernia was made. After sixteen days, the patient was discharged from the hospital. He was advised to have frequent feedings and to elevate the head of his bed about 16 inches.

In April 1950, while he was on a strenuous business trip to Texas, there developed "heaviness" in the chest, dyspnea and a cough productive of frothy, bloody sputum. He was digitalized, with prompt relief. He remained well, without digestive disturbance, until December 16, when he was again readmitted to the hospital because of "excruciating, burning pain" in the anterior portion of the chest, which radiated to both arms. He had obtained no relief following the use of nitroglycerin sublingually and had shortly thereafter become nauseated and had vomited repeatedly.

On admission, he appeared in moderate shock, was dyspneic and coughed up pink, grossly bloody sputum. Examination of the chest revealed fine moist rales in the lower two thirds bilaterally. He was placed in an oxygen tent. An electrocardiogram gave evidence of extensive myocardial damage, but the pattern did not appear to be

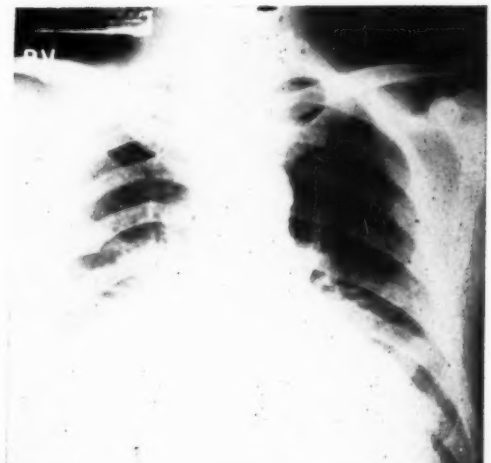


Fig. 2. — Roentgenogram, taken at 6 feet, demonstrates cardiac enlargement and moderate pulmonary congestion on Jan. 15, 1951.

that of recent infarction. On the following day, emesis of approximately 300 cc. of dark, bloody matter and beginning hiccough indicated recurrence of the esophageal hiatal hernia. He was given 50 mg. of methantheline bromide (Banthine) every six hours, ½ ounce of magnesium trisilicate every two hours, and frequent feedings. He was permitted to be ambulatory. In a period of four days the hemoglobin estimation was reduced from 85 per cent to 74 per cent. He was discharged on the seventh hospital day.

Three days later, on December 26, he became acutely dyspneic, and there was clinical evidence of left ven-

tricular failure. Demerol gave temporary relief, and mercurial diuretics have since been employed to keep the chest moisture-free. An ulcer regimen has been instituted to prevent recurrence of symptoms of the hiatal hernia. He has remained relatively comfortable on limited physical activity, and now, in late January 1951, has returned to work for three hours daily.

Fig. 3. — Arrow indicates a portion of the filling defect demonstrated roentgenologically in the lower end of the esophagus and in the cardia.

Treatment

Fortunately, medical management has sufficed in this case and will usually grant symptomatic relief. In the recent series of Clerf and his associates,[4] 69 per cent of the patients received medical and mechanical treatment.

A bland, low residue diet is indicated, and feedings should be small and frequent. As with ulcer patients, emotional upheavals should be avoided. Liquids with meals and postural measures to encourage the passage of foods are helpful, as is the semirecumbent position for sleeping, which prevents gravitational esophageal regurgitation of gastric contents. Reclining after meals is detrimental. Alkalis and antispasmodic preparations to block neurogenic influences are useful.

Patients who are overweight should be urged to a caloric intake low enough to restore normal weight. Reduction of weight is in itself sufficient to relieve the herniation in some cases.

Relief may be obtained for years in some cases by endoscopic procedures, which include dilatation of obstruction and treatment of ulcerations by topical applications.

Although the majority of patients can be treated successfully by conservative measures, surgical repair of the hernia, described in detail by Harrington,[1a] is occasionally necessary. This author advocated the abdominal approach and advised consideration of surgical measures when one third or more of the stomach is involved. Should the colon become involved, surgical repair is necessary because of the danger of intestinal obstruction. Recently, Merendino, Varco and Wangensteen[14] described a method of transferring the esophagogastric junction into a new location and obliterating the hiatus completely.

Summary

The incidence, etiology, symtoms, diagnosis and treatment of esophageal hiatal hernia are reviewed. The difficulties of differential diagnosis are discussed, particularly in relation to cardiac disease.

A case is reported in which recurrent esophageal hiatal hernia and myocardial infarction, with their confusingly similar manifestations, occurred concomitantly.

References

1. Harrington, S. W.: (a) Surgical Treatment of the More Common Types of Diaphragmatic Hernia; Esophageal Hiatus, Traumatic Pleuroperitoneal Hiatus, Congenital Absence and Foramen of Morgagni, Report of 404 Cases, Ann. Surg. 122:546-568 (Oct.) 1945; (b) Diagnosis and Treatment of Various Types of Diaphragmatic Hernia, Am. J. Surg. 50:381-446 (Nov.) 1940; (c) Esophageal Hiatus Diaphragmatic Hernia: Diagnosis and Treatment of 123 Cases, J. Thoracic Surg. 8:127-149 (Dec.) 1938.
2. Gilbert, N. C.: (a) Recurrent Esophageal Hiatus Hernia, M. Clin. North America 32:213-222 (Jan.) 1948; (b) ———; Dey, F. L., and Rall, J. E.: Recurrent Hiatus Hernia, J. A. M. A. 132:132-134 (Sept. 21) 1946.
3. Hurst, A. F.: Recurrent Hernia of the Stomach Through the Hiatus Oesophagus of the Diaphragm, Guy's Hosp. Rep. 84:43-50 (Jan.) 1934.
4. Clerf, L. H.; Shallow, T. A.; Putney, F. J., and Fry, K. E.: Esophageal Hiatal Hernia, J. A. M. A. 143:169-172 (May 13) 1950.
5. Haft, H. H., and Adler, D. K.: Thoracic Stomach Simulating Left Ventricular Failure, Ann. Int. Med. 33:1472-1479 (Dec.) 1950.
6. Rigler, L. G., and Eneboe, J. B.: The Incidence of Hiatus Hernia in Pregnant Women and Its Significance, J. Thoracic Surg. 4:262-268 (Feb.) 1935.
7. Weintraub, S., and Tuggle, A.: Duodenal Diverticula, Radiology 36:297-301 (March) 1941.
8. Aufses, A. H.: Asymptomatic Traumatic Diaphragmatic Hernia Mistaken for Pulmonary Tuberculosis, J. Mt. Sinai Hosp. 8:143-148 (Sept.-Oct.) 1941.
9. Truesdale, P. E.; Hunt, E. L., and Leigh, O. C.: The Role of Obstruction in Diaphragmatic Hernia, Tr. New England S. Soc. (1940) 23:81-105, 1941.
10. Jones, C. M., and Chapman, W. P.: (a) Studies on the Mechanism of the Pain of Angina Pectoris with Particular Relation to Hiatus Hernia, Tr. A. Am. Physicians 57:139-151, 1942; (b) ———, Hiatus Esophageal Hernia, with Special Reference to Comparison of Its Symptoms with Those of Angina Pectoris, New England J. Med. 225:963-972 (Dec. 18) 1941.
11. Reid, W. D.: Hiatus Hernia Simulating Cardiac Infarction, Report of a Case, New England J. Med. 223:50-52 (July 11) 1940.
12. Beckh, W., and Huffman, J.: The Importance of Diaphragmatic Hernia in the Differential Diagnosis of Coronary Artery Disease, Stanford M. Bull. 3:181-184 (Nov.) 1945.
13. Moschcowitz, E.: The Simultaneous Association of Hiatus Hernia and Coronary Disease, J. Mt. Sinai Hosp. 4:272-274 (Nov.-Dec.) 1937.
14. Merendino, K. A.; Varco, R. L., and Wangensteen, O. H.: Displacement of Esophagus into a New Diaphragmatic Orifice in the Repair of Para-Esophageal and Esophageal Hiatus Hernia, Ann. Surg. 129:185-197 (Feb.) 1949.

1022 Park Street.

Absorbable Postplaced Sutures in Cataract Surgery

Joseph W. Taylor, Jr., M.D.
TAMPA

The case for absorbable sutures in cataract surgery is strong, but the case for 6-0 mild chromic sutures placed after the section, using Grieshaber needles is, in my opinion, excellent. An adequate cataract suture should be easy to place, cause no interference with the extraction of the lens, permit point to point approximation, allow quick closure of the wound, promote secure healing of the wound, and be easily removed and nonirritating to the tissues of the eye.

First of all, these sutures are easily placed because of the Grieshaber needles. These needles have one cutting edge on the underside extending back to the midpoint of the 3/8 circle curve on which they are built. The blunt end has an eye through which the suture material is easily threaded. In spite of the presence of the eye, the needle is not bulky at this end. These needles are very sharp and can be used repeatedly, provided the cutting edge is not grasped with the needle holder. To me, they have a distinct advantage over the conventional atraumatic needle.

Good point to point approximation is easily obtainable if one maintains the essential radial direction of the needle. Grieshaber needles allow both corneal and scleral bites to be made in one motion. Little fixation of the cornea is required, thus reducing the amount of trauma to this tissue. Optimum corneoscleral approximation is further enhanced by insertion of the sutures near the extremities of a small knife or keratome section after the manner of Perera.[1] The accuracy in point to point approximation has been brought out in my experience by the prompt reformation of the anterior chamber, the absence of prolapse of the iris, no delayed partial loss of the anterior chamber, and the presence of only an average amount of astigmatism postoperatively.

The 6-0 chromic sutures of the direct corneoscleral type cause no interference with the extraction of the lens. They can be dressed out of the way with ease provided they have been soaked a sufficient length of time in water or in 5 per cent glycerin for five minutes as suggested by Hughes.[2] This type of catgut suture does not stand out well against the usual off white drapes. This disadvantage can be easily overcome by adding several drops of methylene blue to the glycerin solution as recommended by Fralick.[3]

Any adequate cataract suture must allow quick closure of the wound as soon as the lens is delivered. This requirement is fulfilled as well by 6-0 chromic catgut as by the use of silk. Prior to the extraction of the lens the first knot is loosely tied, and as soon as the lens is delivered the loop between the corneal and scleral edges of the wound can be pulled up and this knot tightened. This maneuver can be accomplished in a matter of seconds. Once the first knot is drawn down against the wound, one can then take one's time in tying the second knot, replacing the iris pillars, and carrying out the wound toilet.

The purpose of any cataract suture is to promote quick, secure healing of the wound. The 6-0 mild chromic suture material is admirably suited for carrying out this aim. Fralick[3] has done some interesting studies on cataract wound healing. He has found that the first stage consists of the formation of a fibrin clot which plugs the wound. This fibrin clot accounts for the reformation of the anterior chamber in some cases even before the operation is concluded. Fralick[3] also found that there is a delay of about four days before there is fibroblastic infiltration of this fibrin clot. This latent period is somewhat shortened by the use of sutures that give good approximation of the wound, for good approximation means a small fibrin clot, and the smaller the clot the less distance the fibroblasts must migrate.

The fibroblastic proliferation is fairly secure by the seventh postoperative day, and mild chromic catgut maintains approximation of the wound until this granulation tissue can seal the wound. Any suture, silk or catgut, becomes loose in the wound after five to seven days have elapsed.

Read before the Florida Society of Ophthalmology and Otolaryngology, Twelfth Annual Meeting, Hollywood, April 22, 1951.

The wound is not secure enough in a week for removal of silk sutures. If they are left in longer than this, however, the loosened silk can often act as a wick, thus causing delayed partial loss of the anterior chamber. Although mild chromic catgut is said to be microscopically evident in the tissues for ten days to two weeks, it is seldom grossly evident more than seven days. The Van Lint flap which I employ is usually retracted by the end of seven days, and I have never found any trace of the suture material at this time.

Easy removal is, of course, a prime consideration in the use of any suture because of the possible complications such as rupture of the wound, hemorrhage, prolapse of the iris, or even vitreous loss which can occur during the removal of silk sutures. But with the use of absorbable sutures these pitfalls are avoided.

The degree of irritation from the use of absorbable sutures is a controversial subject. Hughes[2] found that catgut causes somewhat more reaction than silk of a comparable size, but it must be borne in mind that he used 5-0 plain catgut. Since 1944, the quality of the catgut has been improved, and it is now available in the 6-0 size. Fralick,[3] however, was of the opinion that 6-0 mild chromic catgut compares favorably with 6-0 silk. In my experience, I have found absolutely no irritation which can be traced to the suture. So I must conclude that this catgut is nonirritating even when employed as a direct corneoscleral suture.

Summary

I have presented a method of cataract suturing using postplaced mild chromic catgut with Grieshaber needles in which the two slight disadvantages of absorbable sutures, namely, difficult visualization and slight stiffness even after soaking, are far outweighed by the advantages, such as easy placement, good point to point approximation, quick and secure healing of the wound without irritation, and complete absorption, which obviates the necessity for removal.

References

1. Perrera, C., in Kirby, D.: Surgery of Cataract, Philadelphia, J. B. Lippincott Company, 1950.
2. Hughes, W. L.; Guy, L. P., and Romaine, H. H.: Use of Absorbable Sutures in Cataract Surgery, Arch. Ophth. 32:362-367 (Nov.) 1944.
3. Fralick, F. B.: Address before the College of Physicians, Philadelphia, March, 1951. To be published.

706 Franklin Street.

Discussion

DR. JOSEPH W. TAYLOR, SR., Tampa: In the last thirty years, volumes have been written about sutures in surgery of the eye, but all these discussions have pertained to the technic used in placing the sutures rather than the material itself. Not very long ago two ophthalmologists were demonstrating their different methods of inserting sutures for corneal transplants, and each gave the suture a name of his choosing. In so far as I could tell, the only difference was that Dr. A began his suture at the nasal and Dr. B. at the temporal side of the cornea.

In the past, general surgeons used nonabsorbable sutures in thyroid surgery, and now most of them are using catgut. The same is true of ocular muscle surgery; the absorbable sutures are replacing the silk or cotton sutures. As the essayist stated, we have seen no undue reaction from this type of suture, but we believe the lack of such reaction is due to the improved mild chromic catgut that we are now using. We also like the Van Lint flap because it gives added protection to the corneoscleral wound and helps absorption of the catgut. So far we have had no delayed partial or complete loss of the anterior chamber occurring several days following the operation.

I should like to reiterate what has been said by my associate, that with the Grieshaber needles the postplaced sutures are easily inserted, the apposition is excellent, and it is a joy and comfort to have them absorb without the trouble and dangers that go with postoperative removal of the nonabsorbable sutures.

It has been my privilege to observe a number of patients at the time of operation, during their stay in the hospital, and at the office later for refraction. Their convalescence has been uneventful; their refractions have shown the minimum of astigmatic error usual in aphakic eyes.

My prediction is that in the near future absorbable sutures will be the choice in cataract surgery.

DR. CHARLES W. BOYD, Jacksonville: I should like to take this opportunity to thank the essayist for the invitation to discuss this timely subject. Up to the first of this year I had read about absorbable cataract sutures and had watched my old professor, Dr. Wendell Hughes of Hempstead, N. Y., use these sutures in his cataract work, but, like most of us, had refused to be bothered with anything different when what I had was working out so satisfactorily.

After accepting the invitation to discuss this paper, I immediately began inquiring as to who was using absorbable sutures. To my surprise I found that there were relatively few surgeons using these delightful sutures that Dr. Taylor advocates.

Procurement of the sutures was simple. I began using them about the middle of January 1951, and what I have to say for and against is the result of observation on 36 cataract cases in my practice to date.

From this experience, I would summarize the advantages as follows:

1. The 6-0 material is excellent, strong, and the needles sharp.
2. The suture slips through the tissue easily and does not bind.
3. The suture ties up tight on the first knot and does not slip.
4. Resolution begins about the fifth day and usually is complete about the tenth day, although in some few cases the sutures are still present on the fifteenth day.
5. Reaction locally is minimal.
6. The apprehensive patient is relieved of the fear of suture removal and the surgeon the danger engendered by the maneuver.
7. The suture can be used, preplaced or postplaced, with or without flap, by employing a slight modification of the technics.

The disadvantages are:

1. The patient complains of more discomfort the first two or three days postoperatively, as a rule, than with black silk, but this is relatively minor.
2. The suture compared to black silk is more unwieldy, that is, it crawls, tangles and refuses to stay put. For the surgeon operating by himself and without trained assistance, I believe black silk is the more satisfactory.

Stress and the General Adaptation Syndrome or The Theories and Concepts of Hans Selye

Joseph G. Seltzer, M.D.
ORLANDO

The past twenty years in medicine have been years of great discoveries, spectacular concepts and wonder drugs. During these two decades, medicine has advanced more than in the past two centuries.

Most of the miracle drugs, such as the sulfonamides, penicillin, and the mycins, utilized freely, and sometimes too freely, resulted from the painstaking work of one man or one group of workers, who carried out their research problems in their one field. The new miracle drugs, ACTH and cortisone, however, evolved from isolated observations, single findings, and a mass of apparently unrelated scientific facts that date back to in and around 1850.

To one man, medicine especially owes a deep debt of gratitude and heartfelt thanks. The concepts and work of Hans Selye have opened new avenues and new fields of thought and research in the everlasting struggle of man against disease and death. Selye's concept that adaptability is probably the most distinctive characteristic of life and his work in correlating all known facts into a unified system have been truly creative.

Since ACTH and cortisone are becoming more freely available, and in view of the fact that utilization of these drugs will be employed in ever increasing amounts, every physician should have a basic understanding of the principles of stress and adaptability.

History

In the middle of the nineteenth century, Claude Bernard realized that to maintain life, the constancy of the body and mind as a whole must be preserved in spite of the changes in the environment. Subsequently, Walter Cannon introduced the term "homeostasis" to designate the maintenance of this steady state and to direct attention to the role of epinephrine and of the autonomic nervous system in bringing about the internal adjustments upon which it depends.

Frank Hartman, an American, purified adrenal cortical extracts. Experiments with these extracts led to the "general tissue hormone" theory of the corticoids. The conclusion reached was that cortical hormone is necessary for the function of all cells, because it raises the resistance of tissues to infection, combats fatigue of muscles and nerves, and maintains a normal temperature and hydration of tissues.

In 1934 Rene Leriche described "post-operative malady," a clinical syndrome accompanied by characteristic blood chemical changes which appeared after all kinds of severe surgical procedures. Other investigators described morphologic, functional or biochemical changes following exposure to drugs, infections, nervous stimuli, trauma and burns. No correlation was suspected between all these scattered observations.

In ancient medical books, physicians long suspected the curative value of pain, starvation and many other damaging agents. These observations, however, were first evaluated scientifically by Wagner-Jauregg. He first utilized the therapeutic action of fever for various mental diseases, particularly general paralysis. This led to research on other forms of nonspecific therapy, "foreign protein therapy," "malaria therapy," and the like. The mechanism by which artificial fever exerted its beneficial effects, however, and the possible relationship between these and the foregoing observations remained a mystery.

Masugi, a Japanese, observed that in animals treated with renal extracts there developed antibodies against kidney tissue. When their nephrotoxic serums were injected into individual animals, they produced nephrosclerosis and malignant arteriosclerosis with hyalinization of the vessel walls, such as is observed in malignant hypertension and certain allergic diseases.

In 1934, Harry Goldblatt described the production of experimental hypertension by the partial constriction of a main renal artery.

In 1936, it was noted that animals exposed to a variety of nonspecific damaging agents responded with a discharge not only of epinephrine but also of adrenocortical hormone. Simultaneously, their resistance to numerous damaging agents was increased. The most striking feature of this response was its extreme nonspecificity. Any stress was apparently met by an increased discharge of corticoids. This observation suggested that perhaps in man also all the systemic diseases, indeed all the stresses and strains of normal life, are met by a similar defensive corticoid production. Thus developed the realization of one of the fundamental adaptive reactions of vertebrate organisms.

In 1937, it was noted that if the hypophysis is removed, animals can no longer respond with any adrenocortical secretion, even when exposed to severe, lethal stress. Simultaneously, the resistance of these hypophysectomized animals fell to extremely low levels. It was concluded that normal exposure to stress causes both damage, namely, shock, and defense, namely, countershock, phenomena. In the absence of the pituitary, manifestations of damage such as gastric ulcers, hypothermia, hypoglycemia and hypotension become even worse, while most of the presumably defensive changes, such as fever, hyperglycemia, hypertension and dissolution of lymphatic tissue, are eliminated.

Thus nature herself has a general defense mechanism in which the production of corticotrophin plays an important part. A promising way to treat the stress factor of disease, therefore, would be to eliminate the physiologic countershock phenomena by administering supplements of ACTH or corticoids when required. It was hoped that by thus supplementing the natural systemic defense reaction, it would be possible to develop a new, and rather universally applicable, approach to therapy.

Several years later, it became evident that, under certain circumstances, increased endogenous production during stress, or exogenous administration of ACTH and corticoids, can, in itself, become the cause of disease, examples being hypertension, arteriosclerosis, diabetes, gout, myocarditis and various rheumatic-allergic conditions. These diseases are due to excessive or abnormal adaptive reactions. These findings led Selye to formulate the theory of the "General Adaptation Syndrome" and of the "Diseases of Adaptation."

Selye correlated numerous unrelated and independently acquired data of many nations and many journals devoted to almost every branch of medicine to enunciate and prove his theory. The main results of Selye's work show that:

1. Any systemic stress elicits an essentially similar syndrome with general manifestations.
2. This syndrome helps adaptation.
3. Adaptation can cause disease.

In the past few years, Hench at the Mayo Clinic proved the important clinical value of potent glucocorticoid hormone and corticotrophin. He demonstrated truly dramatic improvement with cortisone and ACTH. At the same time, Perera and Pines reported that hypertension which can be elicited with desoxycorticosterone in man is abolished by adrenal extract containing glucocorticoids, and that spontaneous hypertension is reduced by cortisone. It was also found that rheumatic and allergic conditions in animals are aggravated by mineralocorticoids and helped by glucocorticoids and that a derangement in steroid metabolism exists in patients suffering from rheumatoid arthritis.

These findings support the farfetched view that the adrenal cortex plays a role in the pathogenesis of the diseases mentioned.

Thus an understanding of the general adaptation syndrome has helped furnish powerful new drugs in the treatment of disease.

Physiology and Pathology of Stress

The main facts are as follows:

1. Various stresses which affect large portions of the body (cold, fatigue, infections and intoxications) produce a number of somatic changes conjointly as a syndrome. These are the involution of the thymicolymphatic apparatus, the appearance of gastrointestinal ulcers, and the enlargement of adrenal cortex with discharge of its hormones, lipids and ascorbic acid.
2. Some manifestations, especially the adrenocortical changes, proved to be useful. There is an increased corticoid hormone production as proved by urinary bioassays; this helps adaptation since adrenalectomized animals are highly inefficient in adapting themselves to a change, unless they receive corticoid substitution therapy.
3. Nonspecific stress, such as exposure to cold, can cause malignant nephrosclerosis, hypertension and pathologic changes

resembling those characteristic of acute rheumatic fever or of allergic tissue reactions.

4. Similar changes of hyalinosis with hypertension can be produced by anterior pituitary preparations or corticoids.
5. Sodium deficiency protects the body against hyalinosis caused by any of the agents mentioned.
6. Protein deficiency protects only against the hyalinosis caused by stress or by crude pituitary extracts, not against that elicited by ACTH or corticoids.
7. In the kidneys of experimental animals exposed to nonspecific stress, pituitary extracts or corticoids, many nephrons assume the appearance of a solid endocrine tissue. This is known as the "endocrine nephron."
8. Using special surgical technic, it is possible to transform the entire kidney having the aspect of a solid endocrine gland. This is known as an "endocrine kidney."
9. The endocrine transformation of one kidney produces nephrosclerosis in the contralateral organ as well as hypertension and hyalinization with inflammatory changes in the arteries and the heart.
10. ACTH or glucoid corticoids exert a beneficial effect in rheumatic-allergic collagen diseases of man.

These are the chief observations from which the concept of the general adaptation syndrome was developed to the point at which it stands today.

Principal Theory Regarding the General Adaptation Syndrome

1. In addition to many specific defense reactions, examples of which are maintenance of constant body temperature, osmotic pressure, and blood pressure, there is an integrated syndrome of closely interrelated adaptive reactions to nonspecific stress itself. This is called the general adaptation syndrome, or G-A-S.
2. The G-A-S does not merely represent a transitory emergency adjustment to the changes in environment, but is an adaptive reaction which comprises the learning of defense against future exposure to stress, and helps to maintain a state of adaptation once this is acquired.
3. The process of adaptation may itself become the immediate cause of disease. These are diseases of maladaptation, and among these are some of the common fatal diseases such as hypertension, rheumatic diseases and the degenerative, or wear and tear, diseases of old age. The psychosomatic syndrome may also belong to this group.
4. Manifestations of passive nonspecific damage are closely intermingled with those of active defense.
5. In all observations concerning the specific effects of drugs, diets, surgery and disease, some manifestations of the G-A-S will be superimposed upon the specific changes caused by the agents under study, since these agents cause some degree of systemic stress.
6. The G-A-S, as the absolutely normal man, is an abstraction which never occurs in its pure form. All agents capable of eliciting this syndrome have some specific actions of their own which they do not share with other types of stress.
7. The pressor action of the kidney can be stimulated directly by corticoids, by corticotrophin and, more indirectly, by stress which stimulates the secretion of corticotrophin.
8. The renal hormones also have an action upon protein metabolism, as indicated by hyalinosis and fibrinoid degeneration, particularly in the cardiovascular system.

The Alarm Reaction is defined as the sum of all nonspecific phenonema elicited by sudden exposure to stimuli which affect large portions of the body and to which the organism is quantitatively or qualitatively not adapted. Some of these phenonema are merely phases and represent signs of damage or "shock." Others are manifestations of active defense against damage. In the event of moderately severe systemic stress from which recovery is possible, the signs of injury usually precede the appearance of defense phenonema. Alarm reaction may, therefore, be subdivided in turn into two more or less distinct phases.

(1) The Phase of Shock: This is characterized by hypothermia, hypotension, depression of the nervous system, decrease in muscular tone, hemoconcentration, deranged capillary and cell-membrane permeability, generalized tissue breakdown, hypochloremia, hyperkalemia, acidosis, a transi-

tory rise followed by a decrease in blood sugar, leukopenia followed by leukocytosis, eosinopenia and acute gastrointestinal erosions. A discharge of epinephrine, corticotrophin and corticoids is an early defense reaction, which begins during the succeeding phase but is actually characteristic of countershock. The shock phase may vary from a few minutes to about twenty-four hours, depending upon the intensity of the damage inflicted, but unless death ensues, it is always followed by the countershock phase.

There is no satisfactory definition of shock. The definitions that exist are not satisfactory because under certain conditions any one of the so-called "characteristic signs" may be manifested, examples being hypothermia, hypotension, hemoconcentration, capillary permeability, and depressions of the nervous system, although there is no shock; and conversely shock may develop in the absence of such signs.

Selye considers shock as a condition of suddenly developing, intense, general damage. Shock is always a rapidly developing condition. Damage caused by chronic ailments cannot be thus described. Shock also implies that the damage is systemic or general. Localized lesions, no matter how severe, are not designated as shock, unless they lead to generalized damage.

Shock is always considered as primary or secondary. It has been claimed that primary shock is due to nervous stimuli and secondary shock is the result of intoxication with endogenous substances. This conclusion is not definitely proved, and the distinction is not as sharp as was first assumed. Furthermore, even in the event of exposure to stressers which lead to fatal shock within less than an hour, the pathologic and biochemical changes may be practically the same as those occurring in secondary shock. It is therefore doubtful whether these two types should be considered as essentially different, or as an acute and a delayed form of the same process. The data to date suggest that reversible and irreversible shock are due to a difference in severity.

(2) The Phase of Countershock: This phase is characterized by phenonema of defense against shock. There is an enlargement of adrenal cortex with signs of increased activity, acute involution of the thymicolymphatic apparatus and, generally speaking, the reversal of most of the changes seen during the shock phase, namely, rise in blood pressure, hyperchloremia, hyperglycemia, rise in blood volume, alkalosis, increased diuresis and often hyperthermia. These changes are not only synchronous with the stimulation of the adrenocortical activity, but are largely dependent upon the discharge of corticoids into the blood. Countershock phenonema may explain cases in which a distinct period of "primary shock" was followed by secondary shock after an intermittent state of relative well-being.

The countershock phase of the alarm reaction represents a transition to the stage of resistance, and imperceptibly merges into the latter in the event of chronic exposure.

When the alarm reaction was first described in 1936, it was known only that the organism responds with the same set of symptoms to a great variety of systemic stresses. The term "alarm reaction" was coined to intimate that this response represents a call to arms of the body's defense forces. This term, however, has also been used to describe nervous phenonema whose relationship to the general adaptation syndrome is questionable.

The "state of resistance" represents the sum of all nonspecific systemic reactions elicited by prolonged exposure to stimuli to which the organism has acquired adaptation. It is mainly characterized by an increased resistance to the particular stimulating agent to which the body has been exposed and a decreased resistance to other stimuli. Thus the impression is gained that during the stage of resistance, adaptation to one agent is acquired at the expense of resistance to other agents.

Most of the morphologic and biochemical changes of the alarm reaction disappear during the stage of resistance, and indeed in some instances the direction of the deviations from the normal are reversed, that is, hypochloremia during the A-R, hyperchloremia during the state of resistance; loss of lipids from the adrenal cortex during the A-R, deposition of lipids into this gland during the stage of resistance.

The "stage of exhaustion" represents the sum of all nonspecific systemic reactions which ultimately develop as a result of prolonged overexposure to stimuli to which adaptation has been developed but could no longer be maintained.

Selye found that even a perfectly adapted organism cannot indefinitely maintain itself in the state of resistance. If exposure to abnormal conditions continues, adaptation wears out, and many lesions characteristic of alarm reaction, such as gastrointestinal ulcers, and loss of adrenal lipids,

reappear as a stage of exhaustion develops and further resistance becomes impossible.

Conclusion

The great work regarding stress is in the process of extension, and its full meaning is impossible to summarize now. It appears that a multiplicity of host reactions in illness, including the articular and febrile elements of rheumatic fever, the joint involvement of rheumatoid arthritis, the cutaneous and systemic elements of lupus erythematosus, the disturbances in the remainder of the collagen diseases, the bronchospasm, the urticarias, the allergies and numerous other obscure manifestations of illness, may be ameliorated or abolished by suitable adrenal or pituitary agents. These signs and symptoms often recur in varying rates when treatment is stopped, so that cure may not occur. No elimination of a bacterial or viral agent of disease has been accomplished. The mechanisms of relief are complex and probably vary from situation to situation, but modifications of connective tissue reactivity seem important factors. These concepts outlined by Selye emphasize the possibility of deranged pituitary-adrenal functions relating to unexpected systemic consequences.

Disease consists of two components, damage and defense. Up to now, medicine has attempted to attack for the most part only the damaging pathogen, namely to kill the germs, to excise tumors, and to neutralize poisons.

As regards defense, medicine has related itself to such advice as diet, rest, vacations and change of environment. A study of the general adaptation syndrome suggests that we may be able to utilize more effective means of adding adaptation to nonspecific local or systemic injury by supplementing the natural defensive measures of the general adaptation syndrome whenever these are lacking.

References

Cecil, R. L., and Loeb, R. F.: Textbook of Medicine, ed. 8, Philadelphia, W. B. Saunders Company, 1951.
Selye, Hans: The Physiology and Pathology of Exposure to Stress: A Treatise Based on the Concepts of the General-Adaptation-Syndrome and the Diseases of Adaptation, Montreal, Acta, Inc., 1950.

725 Magnolia Avenue.

Aerobiologic Survey of the Miami Beach District Report of Pollen Counts for 1948 and 1949 Including Mold Spore Counts for 1949

Lewis Palay, M.D.
Miami Beach

Miami Beach consists of 30 islands mostly man-made from old mangrove swamps and pumped in from bay bottom. The entire area covers 17 square miles including 9 square miles of water. The average temperature throughout the year is a mild 75 degrees. The winter months average 68.2 degrees and the summer months 81.2 degrees. Winds are about 10 miles an hour more or less, usually from the southeast. Miami Beach is located near the southeast end of Florida, 300 miles farther south than any city on the southern boundary of the United States above the Florida peninsula. It is located on latitude 26 north, which is the same latitude as the Southern Sahara Desert, Middle India and Canton, China. The latest population figure is 45,541, and an estimated one million people spend some time in the 371 hotels each year.

Nichol and Durham[1] reported a survey in 1931 showing the scarcity of pollen in the Miami area. Since then this area has become increasingly popular as a haven for hay fever sufferers. Many settled here and helped to build up the community. Certain persons noticed a gradual return of their allergic symptoms after two or more years of apparent cure. It was necessary to obtain up-to-date information to see if there might have been a

Read before the Florida Allergy Society, Third Annual Meeting, Hollywood, April 22, 1951.

change in the pollen pollution of the air. With this in mind an aerobiologic study was started in September 1947.

Technic

A standard pollen trap was placed on the top of the three floor Alton Road Hospital. There were few pollen grains on the slide in twenty-four hours even when an area of 8.8 sq. cm. was examined. Exposing the slide for longer intervals resulted in the collection of more pollen and made the count more accurate. During 1948 slides were exposed for forty-eight to seventy-two hours and weekly during 1949. The slides were stained with Calberla's solution, and all pollen granules over a slide area of 4.84 sq. cm. were counted under the low power. The high power objective was used frequently to aid in identification. The counts are reported in grains per square centimeter. An effort was made in this study to note the seasonal variations of the pollen.

Trees

Australian pine is shown in table 1. The tree is used for ornamental or hedge purposes throughout Miami Beach and South Florida. One definite pollinating season was noticed starting in February and ending in May or the first week in June. More Australian pine pollen is present by far than all other pollen put together.

Table 1.—Australian Pine Monthly Pollen Counts

	1948	1949	1950
Feb.	101	133	90
Mar	35	37	139
Apr.	3	40	88
May	31	2	24
June	2	1	0
Total	172	213	341

A previous report by Zivitz[2] in 1942 showed the peak of pollination during April 1940 and 1941. In my survey the highest counts occurred in February 1948 and 1949 and March 1950. During February 1948 Australian pine pollen appeared on 16 days for a total of 101 grains. The highest number on a single day was 20 grains, or 40 grains per cubic yard using two as a factor. The daily average for February 1948 was 13 grains per cubic yard and for the season, 6 grains per cubic yard.

The daily average during February 1949 was 15 grains per cubic yard. The daily average for the 1949 season was again 6 grains per cubic yard. The pollen trap was moved to the roof of the six floor Mt. Sinai Hospital in January 1950. Frequent rains during February prevented heavier pollination, and the high counts occurred in March 1950. The highest count was 34 grains per cubic yard, and the average for the season was 8 grains per cubic yard.

Pollens of the other trees were seen in small amounts from the oaks, regular pines and the junipers. During March 1950 the pollen of Juniperus virginiana (red cedar) was seen for two weeks.

Grass

Bermuda grass, Johnson grass and Natal grass are the only ones of importance in this area.[4] No attempt has been made to identify the different varieties of grass pollen. The distribution of grass pollen during 1948 and 1949 is shown in table 2. There were only 65 grains during 1948, and a total of 81 grains during 1949. This means that only a small fraction of 1 grain per day was the average through the year. Even with multiplication by the factor two, which is the factor for grass pollen recommended by Durham,[3] the result would be less than 1 grain per cubic yard.

Table 2.—Grass Monthly Pollen Counts

	1948	1949
Jan.	1	0
Feb.	5	6
Mar.	9	0
Apr.	5	20
May	26	16
June	10	16
July	2	5
Aug.	2	7
Sept.	2	5
Oct.	0	3
Nov.	1	3
Dec.	2	0
Total	65	81

Compare some grass pollen figures from other localities: Los Angeles 232; Tucson 334; Washington, D. C. 366; Key West 224 and Orlando 1,832. I wish to emphasize that the figures for grass pollen in this area are extremely small in comparison. It was truly amazing to find such small counts for two years in succession. Between March and June 1948 only 40 grains of grass pollen were seen on 58 days, an average of 1.4 grains per cubic yard on the pollinating days. In 1949 between April and June a total of 52 grains was seen on 84 pollinating days for an average of 1.2 grains per cubic yard. From August to December of both years this area was practically free of grass pollen. It would appear from these figures that symptoms would be caused by strictly localized exposure and not general.

Ragweed

An area of 4.84 sq. cm. of slide was always examined before reducing to 1 sq. cm. This was necessary because the ragweed pollen frequently occurred clumped together, and it would have been easy to miss all the ragweed. For the entire ragweed season (table 3) from June to September 1948 there were 24 grains found on 25 pollinating days, an average of 1 grain per day or 3.6 grains per cubic yard. The average for June 1948 was a little higher than for the other months. In 1949 the ragweed pollen appeared only from May to August and again in November. The total number of grains was 53 for the entire year. The highest daily average occurred in November, amounting to 3.6 grains per cubic yard. The average for the pollinating days was about 2 grains per cubic yard.

Table 3.—Ragweed Monthly Pollen Counts

	1948	1949
May	0	14
June	13	9
July	4	5
Aug.	4	3
Sept.	3	0
Oct.	0	0
Nov.	0	22
Dec.	0	0
Total	24	53

By comparison with other Florida localities it can be seen readily how favorable this area is for the ragweed patient. In 1949 Key West reported 20 grains and Orlando 471 grains. The Florida State Board of Health established a number of stations during 1950. Daily counts were made, and the following total counts were reported: Miami Beach 8, St. Petersburg 34, Melbourne 340, Daytona Beach 40, Jacksonville 91 and Orlando 998. The Health Department's pollen station in Miami Beach was located in the same general vicinity as mine, but within two blocks of the ocean. It is possible that the ocean breezes prevented the ragweed pollen from settling there. This observation would indicate that ragweed patients should be near the ocean during the summer months.

The survey showed: (1) There was a definite ragweed season from May to September, which was longer than in Northern areas. The presence of ragweed in November 1949 may have resulted from unusually strong westerly winds. (2) Patients encounter slightly more ragweed pollen than grass pollen. (3) The ragweed index during August, September and October is almost zero and is just about as nearly perfect for ragweed hayfever sufferers as any place could be.

Molds

No attempt was made to identify the different varieties of mold spores or fungi except to note the preponderance of short spores over long ones. The long spores refer to Alternaria and kindred spores, such as Cephalothecium, Spondylocladium and Helminthosporium, whereas the one and two cell spores refer particularly to Hormodendrum. Table 4 shows the distribution of the fungus spores. Alternaria and Helminthosporium have been seen in small numbers throughout the twelve months. Spondylocladium and Cephalothecium have been encountered less frequently. A Tetraploa spore was found on several occasions. The Hormodendrum spores are oval and much smaller than Alternaria. They are deposited in large numbers on the slide. Hormodendrum and Cladosporium are considered by some mycologists to be identical; others classify Hormodendrum as being one-celled, and Cladosporium as two-celled.[5]

Petri plates containing a special mold-growing medium were exposed for twelve minutes to the outdoor air at the Mt. Sinai Hospital. After exposure the plates were incubated at room temperature until the colonies reached maturity. Then each macroscopically different colony was transferred to a tube slant. When growth was seen, the tubes were sent for identification to Professor Christensen at the University of Minnesota. This brief survey revealed the following mold colonies: Alternaria, Hormodendrum, Nigrospora, Helminthosporium, Phoma (two different species), Plenozythia, Spondylocladium, Actinomyces or Streptomyces, and one unidentified species.

Table 4.—Monthly Mold Spore Counts

	1949 Long Spores (Alternaria and Kindred Spores)	Short Spores (1 and 2 cell Spores-Hormodendrum)
Jan.	2	0
Feb.	2	0
Mar.	17	0
Apr.	2	0
May	5	300
June	23	200
July	14	400
Aug.	6	400
Sept.	4	200
Oct.	4	600
Nov.	6	400
Dec.	15	0
Total	100	2,500

The subject of molds in relation to inhalant respiratory allergy has become recognized by physicians. The problems to be solved are (1) the relation of the mold spore population of the air to patient symptoms and (2) whether or not seasonal variations are present. The spores therefore would come into the "potential" category with respect to allergenic significance in inhalant respiratory disease judging from the high counts of "one and two-celled spores." It is possible that some of the natives have become sensitive to the air-borne spores for the following reasons: (1) Symptoms of respiratory allergy appear in the fall months and continue into the winter. (2) They show positive skin reactions to mold extracts. (3) No other air-borne contaminants can be incriminated.

Conclusion

A survey based on the examination of exposed slides over a two year period reveals these facts:

1. Grass pollen is insignificant.

2. Ragweed pollen is scarce and almost completely absent during August, September and October, making this district a perfect haven for ragweed patients.

3. Australian pine has a definite pollinating season and produces a large quantity of pollen.

4. This is the first report of the spore population of the air in this district. For some air-borne molds there is a "season" which is reflected in patients' symptoms, but for others this is not indicated.

Appreciation is expressed to Prof. Clyde M. Christensen for identifying the mold colonies.

References

1. Nichol, E. S., and Durham, O. C.: Pollen Survey of Miami, Florida, South M. J. 24:947-948 (Nov.) 1931.
2. Zivitz, N.: Allergy to Australian Pine; Report of Three Cases, J. Allergy 13:314-316 (March) 1942.
3. Durham, O. C.: Personal communication.
4. Wodehouse, R. P.: Hay Fever Plants, Waltham, Mass., Chronica Botanica Company, 1945.
5. Brown, G. T.: Pollen Slide Studies, Springfield, Ill., Charles C. Thomas, 1949.

541 Lincoln Road.

Changes in Compensation Law

HERSCHEL G. COLE, M.D.
TAMPA

For years it has been realized that recent graduates of medical schools, as well as those who have completed their internships and residencies, enter into the practice of medicine with little or no knowledge of the medicolegal problems involved in the treatment of the injured workman as affected by the Workmen's Compensation Law. The books entitled "Disability Evaluation," by McBride, and "Accidental Injuries," by Kessler, are of definite benefit, particularly to the novice, but in no way are they a complete answer to the problems that confront the practitioner.

The medical schools, as well as the staffs of the hospitals where the graduates serve their internships and residencies, should institute some means of instruction regarding this subject, such as a formal course, providing certain basic facts of training to those entering practice, in order that the problems with which they will be confronted may not be so baffling. At this time a knowledge of the compensation law is important indeed, particularly in view of the recent changes made by the last state legislature.

Prior to July 1, 1951, an injured employee, who had been away from work four days as the result of his injury, was then legally entitled to 60 per cent of his average weekly salary, having as a basis a maximum of $22 per week and a minimum of $8 per week, which he would be paid. In other words, if the injured had been receiving $100 a week salary and became disabled, the most he could expect to receive would be $22 per week or a minimum of $8 per week during his period of temporary total disability. The recent changes in the law by the legislature now entitle the injured employee to receive $35 per week instead of $22 and the $8 per week minimum allowance is still maintained.

While most injured employees are anxious to return to their work, there still remains an indolent minority among them, who are willing to accept a pittance for existence. It, therefore, would appear to be much more difficult in the future to return such an employee to his work as long as he is receiving the weekly income of $35, particularly when, in addition, this sum is complemented by

the various industrial private insurance policies that he may carry.

An employee who now, by reason of an injury, becomes permanently totally disabled will receive continuous payments for a period of seven hundred weeks at the maximum rate of $35 per week, this being equivalent to $24,500, increasing the maximum sum over 300 per cent above that provided prior to July 1, 1951. In case of death as the result of injury, the benefits going to dependents still are provided for a period of three hundred and fifty weeks, which, at the new rate of $35 per week, are equivalent to $12,250, compared to $7,700 previously. The striking feature in the change of the law is that the final evaluation of the permanent partial impairment of an injured employee in the future must be carefully guarded owing to the fact that the maximum weekly benefits have been increased from $22 to $35.

I am of the opinion that throughout the state those who are involved in passing professional opinion on the final evaluation of the permanent partial impairment of an injured person have been somewhat liberal in the indefinite cases, particularly cases of low back involvement, in granting a permanent partial impairment on a nuisance basis. Frequently this amounted to 10 per cent of the body as a whole. Today, such allowance without a true basic medical background would be prohibitive.

Because of the legislative changes, liberal in character, insurance rates on compensation insurance are bound to increase in order to offset the cost of compensation benefits. In fact, there already has been a 15 per cent increase in rates. Most any insurance company will claim that the carrying of compensation insurance is not desirable and is done only in order to secure other types of business of more profitable nature. It is conceivable that many companies may discontinue their business in Florida entirely, it now being one of the most liberal of all the states. In fact, I am informed that two have already taken such action.

In turn, the estimate of permanent partial impairment of an employee now must receive far more careful attention than previously and should be based upon medical fact entirely, without regard to the nuisance value. Likewise, in order for the medical profession to keep faith with the public and with the industrial courts and insurance companies, every estimate of permanent partial impairment should be purely on a medical basis with only the element of human error entering into the variance in percentage of the individual estimators. Wide variances in percentage estimates of permanent partial impairment by physicians only lead to distrust of the profession as a whole.

These are a few of the major features of the changes. If at each state convention or even the district meetings an instructional course or a conference were held with a question and answer hour regarding the interpretation of the various phases of the compensation law, as applied to the practice of medicine, much benefit could be derived and many differences of opinion avoided. All increased benefits assumed by the insurance companies are eventually passed on to the employer in the form of increased rates. The employer in turn passes the increase on to the consumer, and it is absorbed in the cost of the materials which the consumer purchases.

The recent radical liberal changes, no doubt, will create a great incentive among the employers to institute pre-employment physical examinations in order that they may avoid being saddled with the responsibility of financial payment for previously existing physical impairment. The examiner should lend an unreserved effort to make a fair evaluation of the patient's condition and disability, and if there is any doubt in his mind, the benefit should be given to the injured.

It must be remembered that one of the most vulnerable areas of any person is his purse. The doctor must be prepared to understand that the injured rarely thinks his estimate of permanent partial impairment is enough, and often the insured thinks it too liberal. This differing viewpoint may result in ill feeling of either of the principals toward the surgeon. The doctor then must make liberal self application of that reliable and everlastingly soothing balm composed of the knowledge that he has scientifically, conscientiously and free from influence, given an honest opinion, even if wrong.

1102 W. Cass Street.

ABSTRACTS OF MEDICAL ARTICLES

THE NORMAL CEREBRAL ANGIOGRAM. By Robert W. Curry and George G. Culbreth. Am. J. Roentgenol. 65:345-373 (March) 1951.

The normal angiographic anatomy of the cerebrovascular system is discussed in detail in this well illustrated article. As in other vascular systems, the courses and distributions of the cerebral vessels present considerable variation. Since some of the variations follow patterns similar to those produced by pathologic change, the authors stress the importance of establishing a thorough knowledge of the limits of normal cerebrovascular anatomy if serious errors are to be avoided in the interpretation of angiographic films. Some of the more important vascular variations which may be seen in cerebral angiography are described.

The observations of normal angiographic anatomy were made from the films of 50 patients who had no space-occupying intracranial lesion that could be determined by history, physical examination, and subsequent clinical course. This series of 50 patients was selected from a total of 210 patients who had cerebral angiography performed at The Johns Hopkins Hospital over a sixteen month period. Pneumoencephalography or ventriculography was performed in 66 per cent of these patients and revealed no significant abnormality. The majority of the patients had either idiopathic epilepsy or subarachnoid hemorrhage of undetermined etiology.

In this series, percutaneous puncture of the common or internal carotid artery for carotid angiography, or of the vertebral artery for vertebral angiography, was carried out following infiltration of the skin of the neck with 1 per cent procaine. The article is intended to be of benefit to those who are confronted with problems in the interpretation of cerebral angiograms. The authors reiterate in conclusion that normal variations frequently simulate changes produced by pathologic processes and unless they are continually borne in mind mistakes in interpretation may easily be made.

GASTRIC RESECTIONS AND VAGOTOMIES, MORBIDITY AND MORTALITY IN A GENERAL HOSPITAL, NOT ASSOCIATED WITH A TEACHING CENTER. By Joseph S. Stewart, M.D. Am. Surg. 17:202-208 (March) 1951.

This study was undertaken in order to compare the results following subtotal gastrectomy and vagotomy as performed in the various teaching hospitals and private clinics with those performed in a general municipal hospital not associated with a medical school, with no full time surgeons and with a staff not tightly closed. A series of 120 cases of subtotal gastrectomy and 17 vagotomies performed at Jackson Memorial Hospital, a municipal general hospital of 500 beds, ward and private, in Miami is presented, and the recent literature on the subject is reviewed.

In the author's series there was a mortality rate of 10 per cent for the 120 subtotal gastrectomies performed by 22 surgeons in a five and one-half year period; for the 17 vagotomies there were no deaths. These results, the only ones reported from a general municipal hospital, are compared with the results in other series. Dr. Stewart suggests that in attempting to evaluate and compare any two procedures, the surgical mortality and morbidity are of primary importance, especially when a benign condition such as duodenal ulcer is under consideration. He recommends, therefore, that each surgeon give careful consideration to his individual mortality and morbidity rates following both subtotal gastrectomy and vagotomy for duodenal ulcer, as well as an accurate appraisal of end results. His conclusions are:

The mortality rate following subtotal gastrectomy, in the hands of the most experienced, is about 3 per cent. It is probable, however, that the rate in many general hospitals throughout the country is many times as high.

The mortality rate following vagotomy has, up to the present, proved to be less than 1 per cent, and it is possible that this rate will not show significant rise even when the operation becomes more widely used.

ADENOMYOMA OF PYLORUS SEEN AT AUTOPSY TWO YEARS AFTER OPERATION FOR PYLORIC STENOSIS IN A NEWBORN GIRL BABY. By Frederick J. Waas, M.D., F.A.C.S., Bernard J. McCloskey, M.D., and Edward J. Sullivan, M.D. Am. Surg. 17:844-848 (Sept.) 1951.

A case is reported in which a 2 year old white girl died suddenly of pulmonary embolism. At autopsy, the pylorus was found to contain an adenomyoma, a tumor containing heterotopic glandular elements surrounded by bundles of smooth muscle. This case presents the rare situation of adenomyoma of the pyloris with symptoms simulating those of the rather frequent hypertrophic pyloric stenosis. Two years previously, at the age of 4 weeks, the patient had been operated on for pyloric stenosis after vomiting had resisted treatment for three weeks. The gross description of the pylorus as observed at autopsy corresponded with the pylorus as described in the surgical record.

It is concluded that the adenomyoma existed at the time of the Fredet-Rammstedt operation and was the cause of the vomiting, also that the symptoms were relieved by the operation up to the time of death two years later. The authors regard the adenomyoma as in no way related to the child's sudden death and they recommend biopsy of every nodular swelling of the pylorus.

SOME LESIONS OF BRONCHI AND ESOPHAGUS. By Thomas M. Edwards, M.D. Laryngoscope 61:368-371 (April) 1951.

The role of the endoscopist in cooperation with the thoracic surgeon is presented in this paper, which reviews the work of a practicing otolaryngologist and a practicing surgeon in a small to medium-sized city. The growing practice of thoracic surgeons to do their own endoscopy is deplored as disadvantageous to the smaller communities because it does not allow the endoscopist the necessary volume to insure the proficiency required to handle the diagnostic and foreign body work of these communities.

Of the diseases encountered, acquired bronchiectasis occurs most frequently. Malignant disease of the lung, particularly bronchogenic carcinoma, is observed with ever increasing frequency. Diagnosis of pulmonary tumors is one of the most difficult. Purulent tracheobronchitis, especially in small children and infants, is too infrequently treated endoscopically in the author's opinion, and he has had too little opportunity to treat asthmatic patients endoscopically to be able to make a critical evaluation. He also mentions tuberculous and esophageal lesions, foreign bodies, the still too frequently seen lye burns, and cardiospasm or achalasia.

Dr. Edwards stresses the responsibility resting upon the otolaryngologist doing endoscopy in the smaller cities to emphasize and re-emphasize to his fellow practitioners, particularly to the general practitioner, the need for the careful examination by every possible means of the "little cough," or the "little heartburn," and the "mild retrosternal pain." Only in this way is there hope for raising the statistical average of cures from malignant diseases of air and food passages.

ACUTE SUPPURATIVE BRONCHITIS AND BRONCHIOLITIS IN CHRONIC PULMONARY DISEASE: DIAGNOSIS AND MANAGEMENT. By Leonard Cardon, M.D., F.A.C.P., Louis Lemberg, M.D., and Regina S. Greenebaum, M.D. Ann. Int. Med. 34:559-591 (March) 1951.

The pathology and pathologic physiology, clinical picture, diagnosis, treatment and complications of acute suppurative bronchitis and bronchiolitis superimposed on chronic pulmonary disease are discussed in detail, and 8 illustrative cases are reported. The authors conclude:

An episode of acute bronchitis ingrafted on chronic asthmatic bronchitis and emphysema, pulmonary fibrosis or bronchiectasis, often misdiagnosed acute left ventricular failure or pneumonia, may so obstruct the bronchi that an acute respiratory emergency and death by suffocation may be precipitated.

The essential therapeutic measures are: repeated aspiration of the tracheobronchial tree, administration of oxygen in adequate concentration, and the use of bronchodilator, vasoconstrictor, antibiotic and chemotherapeutic agents. Supportive and stimulant measures and the prevention and treatment of complications are important adjuvants.

Even a mild infection of the upper part of the respiratory tract in patients with chronic pulmonary disease must be treated seriously from its very incipience. If progress is unfavorable, early hospitalization for constant observation and early drastic treatment are imperative.

Residence in a warm, dry climate during the late autumn, winter and early spring is valuable in the prophylaxis of this serious asphyxial disease.

FLORIDA MEDICAL ASSOCIATION

OFFICERS AND COMMITTEES

OFFICERS

DAVID R. MURPHEY, JR., M.D., President.....*Tampa*
ROBERT B. McIVER, M.D., Pres.-elect.....*Jacksonville*
FREDERICK K. HERPEL, M.D., 1st Vice Pres..*W. Palm Beach*
CHAS. J. COLLINS, M.D., 2nd Vice Pres.....*Orlando*
EDWARD R. ANNIS, M.D., 3rd Vice Pres.....*Miami*
SAMUEL M. DAY, M.D., Sec'y-Treas.....*Jacksonville*
SHALER RICHARDSON, M.D., Editor.....*Jacksonville*

MANAGING DIRECTOR

STEWART G. THOMPSON, D.P.H.....*Jacksonville*
ERNEST R. GIBSON, Assistant.....*Jacksonville*

BOARD OF GOVERNORS*

DAVID R. MURPHEY, JR., M.D., Chm...(Ex Officio) *Tampa*
WILLIAM M. ROWLETT, M.D...AL-52.....*Tampa*
JOHN D. MILTON, M.D...D-52.....*Miami*
DUNCAN T. McEWAN, M.D...B-53.....*Orlando*
JAMES H. POUND, M.D...A-54.....*Tallahassee*
NORVAL M. MARR, M.D...C-55.....*St. Petersburg*
WALTER C. PAYNE, M.D...PP-52.....*Pensacola*
HERBERT E. WHITE, M.D...PP-53.....*St. Augustine*
ROBERT B. McIVER, M.D. (Ex-Officio).....*Jacksonville*
SAMUEL M. DAY, M.D. (Ex-Officio).....*Jacksonville*
HERBERT L. BRYANS, M.D...S.B.H.-52.....*Pensacola*
STEWART G. THOMPSON, D.P.H. (Advisory)..*Jacksonville*

*SUB-COMMITTEES

1. Veterans Care
FREDERICK H. BOWEN, M.D., Chm.....*Jacksonville*
A. JUDSON GRAVES, M.D.....*Jacksonville*
DOUGLAS D. MARTIN, M.D.....*Tampa*
EDWARD F. FOX, M.D.....*Miami*

2. Liaison — National Foundation Infantile Paralysis
FREDERICK H. BOWEN, M.D., Chm.....*Jacksonville*
A. JUDSON GRAVES, M.D.....*Jacksonville*
H. PHILLIP HAMPTON, M.D.....*Tampa*
EDWARD F. FOX, M.D.....*Miami*

3. Review of Fee Schedules
JOHN D. MILTON, M.D., Chm.....*Miami*
THOMAS H. BATES, M.D.....*Lake City*
FREDERICK H. BOWEN, M.D.....*Jacksonville*
J. BROWN FARRIOR, M.D.....*Tampa*
JOSEPH C. HAYWARD, M.D.....*Orlando*
FLOYD K. HURT, M.D.....*Jacksonville*
IRWIN S. LEINBACH, M.D.....*St. Petersburg*
HAROLD G. NIX, M.D.....*Tampa*
JACK O. W. RASH, M.D.....*Miami*
KENNETH S. WHITMER, M.D.....*Miami*
ADELBERT F. SCHIRMER, M.D.....*Orlando*

4. Blue Shield
LEIGH F. ROBINSON, M.D., Chm.....*Ft. Lauderdale*

SCIENTIFIC WORK

JAMES N. PATTERSON, M.D., Chm...AL-52.....*Tampa*
JAMES L. BORLAND, M.D...B-52.....*Jacksonville*
CAROL C. WEBB, M.D...A-53.....*Pensacola*
FREDERICK K. HERPEL, M.D...D-54.....*W. Palm Beach*
JERE W. ANNIS, M.D...C-55.....*Lakeland*

LEGISLATION AND PUBLIC POLICY

EUGENE G. PEEK, SR., M.D., Chm...B-54.....*Ocala*
J. MAXEY DELL, JR., M.D...AL-52.....*Gainesville*
RUSSELL B. CARSON, M.D...D-52.....*Ft. Lauderdale*
DANIEL A. McKINNON, M.D...A-53.....*Marianna*
ANGUS D. GRACE, M.D...C-55.....*Fort Myers*
DAVID R. MURPHEY, JR., M.D. (Ex Officio).....*Tampa*
SAMUEL M. DAY, M.D. (Ex-Officio).....*Jacksonville*

MEDICAL EDUCATION AND HOSPITALS*

JULIUS C. DAVIS, M.D., Chm...A-53.....*Quincy*
JOSHUA C. DICKINSON, M.D...AL-52.....*Tampa*
THOMAS C. KENASTON, M.D...B-52.....*Cocoa*
ELBERT McLAURY, M.D...D-54.....*Hollywood*
S. CARNES HARVARD, M.D...C-55.....*Brooksville*

*SPECIAL ASSIGNMENT

1. Urge Gifts to American Medical Education Foundation

PUBLIC RELATIONS*

EUGENE B. MAXWELL, M.D., Chm...AL-52.....*Tampa*
FRANCIS T. HOLLAND, M.D...A-52.....*Tallahassee*
LEIGH F. ROBINSON, M.D...D-53.....*Ft. Lauderdale*
HOWARD V. WEEMS, SR., M.D...C-54.....*Sebring*
EUGENE G. PEEK, JR., M.D...B-55.....*Ocala*

*SPECIAL ASSIGNMENT

1. Rural Educational Program

*SUB-COMMITTEE

2. State Education Campaign
DAVID R. MURPHEY, JR., M.D., Chm.....*Tampa*
WALTER C. PAYNE, M.D.....*Pensacola*
EUGENE B. MAXWELL, M.D.....*Tampa*

NECROLOGY

JOSEPH HALTON, M.D., Chm...C-53.....*Sarasota*
THEODORE C. KERAMIDAS, M.D...AL-52....*Winter Haven*
CHARLES H. DAFFIN, M.D...A-52.....*Panama City*
WALLACE H. MITCHELL, M.D...D-54.....*Key West*
JOSEPH J. LOWENTHAL, M.D...B-55.....*Jacksonville*

MEDICAL POSTGRADUATE COURSE

TURNER Z. CASON, M.D., Chm...B-55.....*Jacksonville*
ROBERT J. PATTERSON, M.D...AL-52.....*Hollywood*
WILLIAM C. ROBERTS, M.D...A-52.....*Panama City*
FRANZ H. STEWART, M.D...D-53.....*Miami*
J. BROWN FARRIOR, M.D...C-54.....*Tampa*

CANCER CONTROL

FRAZIER J. PAYTON, M.D., Chm...D-54.....*Miami*
C. FRANK CHUNN, M.D...AL-52.....*Tampa*
HAROLD O. BROWN, M.D...C-52.....*Tampa*
ROBERT L. TOLLE, M.D...B-53.....*Orlando*
GEORGE W. MORSE, M.D...A-55.....*Pensacola*

MEDICAL ECONOMICS

MERRITT R. CLEMENTS, M.D., Chm...A-52....*Tallahassee*
EDWARD R. ANNIS, M.D...AL-52.....*Miami*
JOHN E. MAINES, JR., M.D...B-53.....*Gainesville*
HARRISON A. WALKER, M.D...D-54.....*Miami*
WILLIAM H. WALTERS, JR., M.D...C-55.....*Lacoochee*

VENEREAL DISEASE CONTROL

FRANK J. PYLE, M.D., Chm...B-52.....*Orlando*
JULIO J. GUERRA, M.D...AL-52.....*Clearwater*
JOHN C. McSWEEN, JR., M.D...A-53.....*Pensacola*
WILEY M. SAMS, M.D...D-54.....*Miami*
MELVIN M. SIMMONS, M.D...C-55.....*Sarasota*

INTERRELATIONSHIP

HENRY J. PEAVY, SR., M.D., Chm...D-54...*Ft. Lauderdale*
C. McK. TYRE, M.D...AL-52.....*Eustis*
J. POWELL ADAMS, M.D...A-52.....*Panama City*
ORVILLE L. BARKS, M.D...B-53.....*Sanford*
EMMETT E. MARTIN, M.D...C-55.....*Haines City*

TUBERCULOSIS AND PUBLIC HEALTH*

ALVIN L. STEBBINS, M.D., Chm...A-52.....*Pensacola*
V. MARKLIN JOHNSON, M.D...AL-52....*West Palm Beach*
PHILLIP W. HORN, M.D...B-53.....*Jacksonville*
ERASMUS B. HARDEE, M.D...D-54.....*Vero Beach*
LOUIS J. GARCIA, M.D...C-55.....*Tampa*

*SPECIAL ASSIGNMENT

1. Diabetes Control

STATE CONTROLLED MEDICAL INSTITUTIONS

William D. Rogers, M.D., Chm...A-52...*Chattahoochee*
Gordon H. McSwain, M.D...AL-52.....*Arcadia*
Bailey B. Sory, Jr., M.D...D-53.....*Palm Beach*
James G. Lyerly, M.D...B-54.....*Jacksonville*
Samuel G. Hibbs, M.D...C-55.....*Tampa*

MATERNAL WELFARE

E. Frank McCall, M.D., Chm...B-52.....*Jacksonville*
William G. Meriwether, M.D...AL-52.....*Plant City*
Lowrie W. Blake, M.D...C-53.....*Bradenton*
John N. Sims, Sr., M.D...A-54.....*Live Oak*
Ralph W. Jack, M.D...D-55.....*Miami*

CHILD HEALTH

Egbert V. Anderson, M.D., Chm...A-52.....*Pensacola*
Fred S. Gachet, M.D...AL-52.....*Lakeland*
Luther W. Holloway, M.D...B-53.....*Jacksonville*
Warren W. Quillian, M.D...D-54.....*Coral Gables*
Daniel F. H. Murphey, M.D...C-55.....*St. Petersburg*

CONSERVATION OF VISION

R. Renfro Duke, M.D., Chm...AL-52.....*Tampa*
Nathan S. Rubin, M.D...A-52.....*Pensacola*
William Y. Sayad, M.D...D-53.....*West Palm Beach*
Sherman B. Forbes, M.D...C-54.....*Tampa*
G. Taylor Gwathmey, M.D...B-55.....*Orlando*

ADVISORY TO WOMAN'S AUXILIARY

C. Robert DeArmas, M.D., Chm...B-55...*Daytona Beach*
M. Eldridge Black, M.D...AL-52.....*Clearwater*
J. Lloyd Massey, M.D...A-52.....*Quincy*
Edward F. Shaver, M.D...C-53.....*Tampa*
James L. Anderson, M.D...D-54.....*Miami*

REPRESENTATIVES TO INDUSTRIAL COUNCIL*

Charles R. Burbacher, M.D., Chm...D-55..*Coral Gables*
Herschel G. Cole, M.D...AL-52.....*Tampa*
Julius C. Davis, M.D...A-52.....*Quincy*
G. Frederick Oetjen, M.D...B-53.....*Jacksonville*
Chas. L. Farrington, M.D...C-54.....*St. Petersburg*

*SPECIAL ASSIGNMENT

1. *Industrial Health*

COUNCILOR DISTRICTS AND COUNCIL

William C. Roberts, M.D., Chm...AL-52...*Panama City*
First—Arthur J. Butt, M.D...1-52.....*Pensacola*
Second—Benjamin A. Wilkinson, M.D...2-53.*Tallahassee*
Third—Eugene G. Peek, Jr., M.D...3-52.....*Ocala*
Fourth—Eugene L. Jewett, M.D...4-53.....*Orlando*
Fifth—Hugh G. Reaves, M.D...5-53.....*Sarasota*
Sixth—Leldon W. Martin, M.D...6-52.....*Sebring*
Seventh—Adrian M. Sample, M.D...7-52....*Fort Pierce*
Eighth—Donald W. Smith, M.D...8-53.....*Miami*

GRIEVANCE COMMITTEE

Walter C. Payne, M.D., Chm.....*Pensacola*
Herbert E. White, M.D.....*St. Augustine*
Joseph S. Stewart, M.D.....*Miami*
William C. Thomas, Sr., M.D.....*Gainesville*
Shaler Richardson, M.D.....*Jacksonville*

ADVISORY TO SELECTIVE SERVICE FOR PHYSICIANS AND ALLIED SPECIALISTS

J. Rocher Chappell, M.D., Chm.....*Orlando*
Thomas H. Bates, M.D..."A".....*Lake City*
Frank L. Fort, M.D..."B".....*Jacksonville*
Alvin L. Mills, M.D..."C".....*St. Petersburg*
John D. Milton, M.D..."D".....*Miami*

EMERGENCY MEDICAL SERVICE

James L. Borland, M.D., Chm.....*Jacksonville*
Merritt R. Clements, M.D..."A".....*Tallahassee*
Vernon A. Lockwood, M.D..."B".....*St. Augustine*
Herschel G. Cole, M.D..."C".....*Tampa*
Frederick K. Herpel, M.D..."D".....*West Palm Beach*

A.M.A. HOUSE OF DELEGATES

Homer L. Pearson, Jr., M.D., Delegate.....*Miami*
Frank D. Gray, M.D., Alternate.....*Orlando*
(Terms expire Dec. 31, 1952)
Louis M. Orr, II, M.D., Delegate.....*Orlando*
Joshua C. Dickinson, M.D., Alternate.....*Tampa*
(Terms expire Dec. 31, 1953)
Herbert L. Bryans, M.D., Delegate.....*Pensacola*
(Term expires Dec. 31, 1953)

BOARD OF PAST PRESIDENTS

William E. Ross, M.D., 1919.....*Jacksonville*
H. Marshall Taylor, M.D., 1923.....*Jacksonville*
John C. Vinson, M.D., 1924.....*Tampa*
John S. McEwan, M.D., 1925.....*Orlando*
H. Mason Smith, M.D., 1926.....*Tampa*
John A. Simmons, M.D., 1927.....*Arcadia*
Frederick J. Waas, M.D., 1928.....*Jacksonville*
Julius C. Davis, M.D., Chm., 1930.....*Quincy*
William M. Rowlett, M.D., 1933.....*Tampa*
Homer L. Pearson, Jr., M.D...1934.....*Miami*
Herbert L. Bryans, M.D., 1935.....*Pensacola*
Orion O. Feaster, M.D., 1936.....*Renton, Wash.*
Edward Jelks, M.D., 1937.....*Jacksonville*
W. Henry Spiers, M.D., 1938.....*Orlando*
Leigh F. Robinson, M.D., 1939.....*Ft. Lauderdale*
Walter C. Jones, M.D., 1941.....*Miami*
Eugene G. Peek, Sr., M.D. 1943.....*Ocala*
John R. Boling, M.D., 1944, 1945.....*Tampa*
Shaler Richardson, M.D., 1946.....*Jacksonville*
William C. Thomas, Sr., M.D., 1947.....*Gainesville*
Joseph S. Stewart, M.D., 1948.....*Miami*
Walter C. Payne, M.D., 1949.....*Pensacola*
Herbert E. White, M.D., Sec'y., 1950.....*St. Augustine*

VOLUME XXXVIII
NUMBER 7

The Journal of the Florida Medical Association

OWNED AND PUBLISHED BY FLORIDA MEDICAL ASSOCIATION

P. O. BOX 1018 JACKSONVILLE, FLORIDA

Editor
Shaler Richardson, M.D.

Assistant Editor
Webster Merritt, M.D.

Associate Editors

Louis M. Orr, II, M.D.....Orlando
Franz H. Stewart, M.D.....Miami
James R. Boulware, Jr., M.D.....Lakeland
Herschel G. Cole, M.D.....Tampa
Wilson T. Sowder, M.D.....Jacksonville
Carlos P. Lamar, M.D.....Miami
Walter C. Payne, M.D.....Pensacola

Managing Editor
Stewart G. Thompson, D.P.H.

Committee on Publication

Shaler Richardson, M.D., Chairman.....Jacksonville
Chas. J. Collins, M.D.....Orlando
James N. Patterson, M.D.....Tampa

Abstract Department

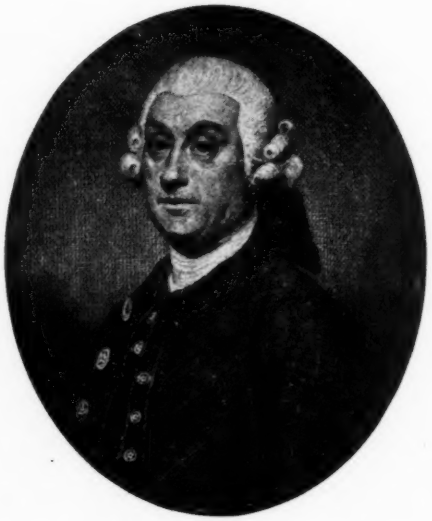
Kenneth A. Morris, M.D., Chairman.....Jacksonville
Walter C. Jones, M.D.....Miami

January Anniversaries

JANUARY 6. Percival Pott, a name entirely devoid of euphony and beauty, has become beautiful because of the fine character and high integrity of the man to whom it belonged. Born in London on Jan. 6, 1713, Dr. Pott, the most distinguished surgeon of his period, spent much of his life fighting quackery, which was unusually rampant during his lifetime. Two notorious quacks with tremendous popularity were objects of his wrath. One prevailed upon Parliament to pay £1,000 or more for her remedy for stone—a mixture of snails, eggshell and herbs. The other, a Mrs. Mapp who called herself a bonesetter, was accustomed to ride from Epsom to London in her coach with four liveried servants. During one of his highly articulate and none too tender crusades, Dr. Pott characterized her as an ignorant, illiterate, drunken, female savage.

After sustaining a compound fracture of the leg when he was thrown from his horse, Dr. Pott used the period of enforced leisure to record his medical observations on fractures. Today, every advanced medical student can describe Pott's fracture. An even greater contribution perhaps was his description of what is known now as Pott's disease of the spine.

Dr. Pott was genial, witty and popular. It was said of him shortly before he died in 1788 that he had served St. Bartholomew's Hospital "as man and boy for half a century," but the truth is that he was happiest in his own large family. He had four sons and four daughters.



Percival Pott (1714-88)
Courtesy, Garrison: An Introduction to the History of Medicine, Philadelphia, W. B. Saunders Company.

JANUARY 17. Benjamin Franklin was beyond doubt a genius, but at the same time he was a simple, unpretentious American. Born in Boston on Jan. 17, 1706, he became what we may call the first really ideal American in the sense that we think of our nation as made up of people primarily resourceful, inventive, tolerant, loyal, honest and forthright. Franklin was all these and much more. The outstanding citizen of America in the eyes of the world at large, he was also a scientist in the true sense of the word, inventor of the lightning rod and a new type of stove, first editor, publisher and bookseller in Philadelphia, organizer of that city's fire department, founder of the American Philosophical Society, president of the Commonwealth of Pennsylvania and first United States Minister to France.

FRANKLIN

By David Martin (1737-1798). This so-called "thumb portrait" was commissioned by Franklin in London in 1767 for his family. At his death he bequeathed it to the Executive Council of Pennsylvania.

Reproduced through the courtesy of PENNSYLVANIA ACADEMY OF FINE ARTS.

To Franklin's many-sided genius, medicine owes the invention of bifocal lenses, a flexible catheter, electrotherapy and observations upon gout and medical education. His discovery of bifocal spectacles lapsed into obscurity for many years. He made them by having the lenses of two pairs of spectacles, one for reading and the other for distant vision, cut in half and the half of the one cemented to the half of the other. He wrote from Paris that the bifocals were especially helpful at the dinner table. He was able to see what he ate and also to watch the faces and lips of people on the other side of the table so that he could better understand the French conversation of his hosts.

In his newspaper, by personal solicitation and by petitioning the assembly, Franklin assisted in raising funds for the Pennsylvania Hospital of Philadelphia, the oldest institution in the United States for the care of the sick. "I do not remember," he said, "any of my political manoeuvres the success of which . . . gave me more pleasure."

Everyone would do well to read and reread Franklin's autobiography, his almanac and some of his letters. His words are as alive and valuable today as when he first wrote them. Although Franklin was not a Doctor of Medicine, we of the medical profession acknowledge the valuable contributions of this great American pioneer to the science of medicine.

The Challenge of 1952

Now that the holiday season has waned and the dying old year has made way for the New Year, bright with hope, it seems appropriate to contemplate the priceless gift proffered every citizen across the years by our forefathers. It was they who wrote into our Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain inalienable rights, that among these are life, liberty and the pursuit of happiness."

Truly these are pregnant words in our great country today when we stand, as never before in our history, at the crossroads. This concept of liberty, of freedom, of the rights of the individual, is sorely threatened. This precious gift calls for all out defense. The decisions of 1952 may well rock civilization to its very foundations.

Individualist that he is, the physician is peculiarly endowed by the very nature of his profession to appreciate the true worth of his "inalienable rights." Already he has been called upon to take over the front line trenches in their defense and has not been found wanting. But to win a battle is not to win a war.

Addressing the annual convention of the American Legion in Miami last October, Dr. Elmer L. Henderson, immediate past president of the American Medical Association and of the World Medical Association, congratulated the veterans on being one of the first great national groups to go on public record in opposition to compulsory health insurance and any other form of government regimentation and oppression in the practice of medicine. He reminded them that the Legion since 1945, when it first voiced its attitude, had consistently renewed its pledge of opposition, thereby giving evidence in one more way of its devotion to 100 per cent Americanism.

In conclusion, Dr. Henderson expressed the challenge of 1952 in these words:

"Today it is imperative that we all be alert to well camouflaged assaults from the flanks or from the rear. I can assure you without reservation that the medical profession is not dropping its guard. . . .

"We men of medicine are dedicated to the saving of human life. Now we have further dedicated ourselves to the preservation of the American way of life."

Eyes Urgently Needed

The urgent need for eyes is stressed in an appeal by The Eye-Bank for Sight Restoration, Inc., of New York. Since the establishment of this organization in 1945, the demand for eyes for the corneal transplant operation has steadily increased. At first it was believed that possibly 50 eyes a year might meet the need in a city the size of New York, but the Eye-Bank rapidly took on a national character. Not only does it now supply eyes for patients within the city of New York and the surrounding area, but it also supplies most of the eyes to physicians throughout the country who perform the corneal transplant operation.

Each year more and more ophthalmic surgeons are being trained in the technic of performing this operation. Also, owing to advances along technical lines, it has been found that many more patients can be subjected to keratoplasty than was at first supposed. Furthermore, the demand for more eyes is increased today because keratoplasty now has additional uses. It is employed in the treatment of certain corneal diseases as well as in corneal scarring. Particularly is lamellar keratoplasty proving a useful procedure.

The Eye-Bank especially desires that physicians who are enucleating eyes in which the cornea is in good condition report in advance that they plan enucleation so that directions may be given for transporting the eyes to the Eye-Bank. A free pathologic examination of these eyes is made, and reports are furnished.

With widespread cooperation of physicians, it is believed that the demand, which now exceeds the supply, will be met. Those wishing to aid in this program may obtain a description of the eyes suited for keratoplasty by writing or telephoning to The Eye-Bank for Sight Restoration, Inc., 210 East 64th St., New York 21, N. Y., telephone, Templeton 8-9200.

Accreditation of Hospitals by Four Group Commission

A joint commission recently has been established for the accreditation of hospitals in the United States and possibly Canada. It will be composed of 18 members, six appointed by the American Medical Association, six by the American Hospital Association, three by the American College of Surgeons and three by the American College of Physicians. If the Canadian Medical Association accepts an invitation to participate, it will appoint one representative and the American Hospital Association will appoint an additional member from the Canadian hospitals. It is expected that the commission will be in operation by Jan. 1, 1952.

For more than a quarter of a century the American College of Surgeons has successfully administered the hospital standardization program, its investment from membership dues exceeding $2,000,000. It is estimated that the combined budgets of the new commission's constituent organizations, determined on a basis proportionate to representation on the commission, will approximate $250,000 annually, once it gets underway. Functioning as a nonprofit corporation, the commission plans to employ as director a physician experienced in hospital administration, who, with the aid of a limited clerical staff, will manage its affairs.

The functions of the commission will be to formulate standards relating to hospital accreditation, to establish the type and scope of inspections to be made under this program, to assign responsibility for hospital inspections to the several participating organizations, and to award certifi-

cates of accreditation to qualifying hospitals. At the present time, there are 3,200 hospitals approved by the American College of Surgeons.

Inspections for purposes of hospital accreditation will be made and reported in a uniform manner by staff representatives of the participating organizations, with the reports to be evaluated and acted on by the commission itself. Inspections will relate primarily to the professional and administrative aspects of the hospital. They will not be concerned directly with the hospital's teaching program.

The creation of the national Joint Commission for the Accreditation of Hospitals marks the culmination of earnest effort to resolve seemingly irreconcilable differences and becomes a noteworthy achievement looking to continued improvement of hospital and medical care for the patient. Comments the Journal of the American Medical Association editorially:

"Agreement on a cooperative basis for carrying out this important program marks a milestone in the history of the relations between these four organizations. It gives confirmation to the belief that though the views of the several groups may at times appear to be in conflict, differences of opinion can be settled if the ultimate objective, that of better patient care, is kept in mind.

"This cooperative effort refutes those who claim that problems confronting the profession and hospitals today can be resolved only by the intervention of an outside agency. In the same spirit of mutual help, the profession and hospitals can and will move forward in a concerted effort to provide an even better product of physician-hospital care for the final arbiter of its worth, the public."[1]

1. Joint Commission for the Accreditation of Hospitals, J. A. M. A. 147:761-762 (Oct. 20) 1951.

California Takes Heed

Meeting late in August, the state bar of California took cognizance of the increased awakening of lawyers in many sections of the country to the threats of "socialization of the practice of law" and proposed a counteroffensive. Leaders of this organization said that pressures have been increasing for a number of years in behalf of programs giving government enlarged powers over various phases of legal practice. They observed that one of the avenues of attempted socialization is establishment of legal reference services under state or local government jurisdiction.

The California Bar took immediate steps to establish a lawyer reference service in each community. Its members were of the opinion that this measure would solve the problem of many potential clients who do not know how to find a reputable lawyer — within the existing professional and economic framework.

The persistent drive for socialized medicine, not only in California but nationally, has led the legal profession to look to its own vulnerability, bar members frankly admitted. This trend is apparent in the many requests from bar associations for medicine's "Simplified Blueprint of Campaign," received by Whitaker & Baxter, the American Medical Association's public relations firm. This increasing interest should facilitate a closer working relationship between medical societies and bar associations against the common threat of socialization.

School of Cytology

The Cancer Cytology Center of the Dade County Cancer Institute, an affiliate of the Medical Research Foundation of Dade County in Miami, has announced its first one-week seminar for physicians to be held at the Institute from January 14 to 19 inclusive. The lecture courses are scheduled from 9 a.m. to 5 p.m. daily during this period.

Instruction will be under the supervision of Dr. J. Ernest Ayre, Director of the Institute and its research staff. More than twenty outstanding local and visiting physicians and scientists will compose the faculty.

This first School of Cytology in Florida anticipates enrolment from local, State and regional areas as well as from the Caribbean.

The general course of instruction in cancer diagnosis and cytology will include lectures, demonstrations and symposiums covering the various branches of medicine as related to cancer, including clinical, cytological, surgical and histopathological fields.

Interested physicians should direct their inquiries regarding qualifications, registration, fees and other details to the Director of the Dade County Cancer Institute at 1155 North West 14th Street, Miami.

Applications for registration, limited to 35 physicians, will be accepted through January 12.

Student American Medical Association Journal

In January, the first issue of a 72 page Journal of the Student American Medical Association will be out. Published monthly, except in July, August and September when the schools are closed, this new journal will have a circulation of more than 33,000. Some 26,000 medical students and approximately 7,000 interns will receive it.

This publication will enable the Student American Medical Association to "provide the young doctor with a broader realization of the socio-economic aspects of medicine" and also to "demonstrate to tomorrow's doctors their duties and responsibilities not only as physicians but as citizens in their respective communities. It will also show the young doctor why the nation's medical schools need his enthusiastic support to continually improve medical education."

Regional Meeting of American College of Physicians

The Southeastern Regional Meeting of the American College of Physicians was held at the George Washington Hotel in Jacksonville on November 2 and 3, 1951. Of the 115 registrants, there were 10 from Alabama, 76 from Florida, 14 from Georgia and 12 from South Carolina, the states comprising the region, and 1 from Cuba, which is also included in the area; in addition, there was 1 from Tennessee and 1 from Pennsylvania.

The excellent program was well received, the papers comparing favorably with those presented at the national meetings. The five Florida physicians participating in the diversified program were Drs. E. Sterling Nichol, Miami, Bernard J. McCloskey, Jacksonville, and, by invitation, John S. Graettinger, Pensacola, Daniel R. Usdin and Donald P. White, Jr., Jacksonville.

At the banquet on Friday night, Dr. Edward L. Bortz of Philadelphia, a Regent of the College, presented an address on "The Challenge of Growth." He also lectured at the morning session on "Nutritional Deficiencies and Premature Ageing."

Entertainment for the ladies was provided by the wives of the local members of the College. On Saturday afternoon, Mr. Robert Kloeppel, Sr., was host to all who wished to remain over for a yacht trip down the St. Johns River.

Dr. William C. Blake of Tampa, Governor for Florida, was chairman of the meeting. Presiding at the afternoon session on Friday was Dr. E. Dice Lineberry of Birmingham, Governor for Alabama, and at the Saturday morning session, Dr. Robert Wilson, Jr., Governor for South Carolina. Toastmaster at the banquet was Dr. Carter Smith of Atlanta, Governor for Georgia. Dr. Jose J. Centurion of Havana is Governor for Cuba. The Regional Meeting in the fall of 1952 will be held either in Havana or Atlanta.

New Doctor Draft Interpretations

The National Advisory Committee to Selective Service has released the following information relative to the Doctor-Draft act:

"1. When delay in active duty is requested for a Naval reserve medical officer, the request must be signed by the state chairman and must clearly state that the officer is essential in his present capacity.

"2. World War II deferment of medical students, resulting in their being placed in Doctor-Draft Priorities I or II, must have taken place in part at least within the period December 7, 1941 to March 31, 1947.

"3. The Doctor-Draft act applies only to World War II deferments granted by the Selective Service System, and not to active duty deferments granted to reserve officers by the military services. Therefore, a registrant who received deferment under the latter conditions is not by reason of this to be placed in Priorities I or II."

Medical Stockpile Program Lagging

Apparently the nationwide medical stockpile program is lagging, according to information from the A. M. A. Washington office.* This is mainly because the majority of the states have not sent plans to Washington for approval. In the early part of the year, the delay was on the federal level due to lack of funds, but now the Federal Civil Defense Administration has the money to be used on a 50-50 matching share of local stockpiles.

The following information is quoted from the Capitol Clinic and depicts the status of the medical stockpile program at the end of November.

"Actually, only 12 state plans have been processed to the point where orders have been filled with the Armed Services Medical Procurement

Agency, which will do the pooled purchasing. Some of these states should be receiving first shipments during December. Fifteen other states, for which CDA several months ago allocated money — all containing one or more likely target areas — have yet to submit acceptable plans. Available for distribution to the states is the bulk of a $20 million appropriation.

"Under the master plan, these U.S.-state stockpiles are expected to take care of casualties during the first four hours after an attack. By then, it is expected that suppplies will be received from regional stockpiles, set up and maintained entirely by federal funds. These U.S. medical depots will be located, wherever possible, within four hours trucking time of critical target areas.

"Because funds for the all-U.S. regional stockpiles were voted late in the session, they probably will not be set up for several months. Meanwhile, emphasis is on hurrying state and community programs which would be the first line of medical defense in case of an attack. There are some production difficulties, principally with standard burn pads, certain textiles, duck fabrics and instruments, but no critical delays are expected, provided the states draw up their programs in time."

*Capitol Clinic Vol. 2, No. 48, Nov. 27, 1951.

New Plaque for Your Office

After several years hearing and investigating patient complaints against physicians, grievance committees throughout the nation have announced similar findings. Most complaints arise due to misunderstanding, particularly in regard to fees, and as to what services have been rendered for those fees. They have also found that the majority of grievances are amicably settled through explanation by the doctor to his patient. It is evident, therefore, that a frank discussion of fees and services in the beginning would tend to forestall misunderstandings and aggrieved patients.

Patients have an understandable reluctance to discuss fees with their doctors. This can be counteracted largely by each doctor helping his patients to realize that he wants to talk to them, and to arrive at a friendly mutual understanding. They should be encouraged to seek answers for any questions they may have.

As an aid to the busy doctor who can ill afford to take the time which may be necessary tactfully to open a discussion on fees and services, a simple device for doctors' offices is available from the American Medical Association. This is an attractive office plaque which reads:

To All My Patients

I invite you to discuss frankly with me any questions regarding by services or my fees. The best medical service is based on a friendly, mutual understanding between doctor and patient.

This plaque is described and illustrated on page 512 of this Journal. It should be given a prominent place on every physician's waiting room wall, receptionist's desk or other place where patients cannot possibly fail to see it. The price is $1.00.

Your "Briefs" of December 5 announced this invaluable public relations aid. With this "Briefs" each member received an order envelope so that to get your plaque, if you have not already done so, simply place $1.00 in this envelope, write your name and address on the inside of the flap and mail. If you have mislaid your order envelope write the Florida Medical Association, Box 1018, Jacksonville, for another, or turn to page 512 and see how you may order direct from the A. M. A.

Graduate Medical Education

A meeting of the division chairmen of the Faculty of the Department of Medicine of the Graduate School of the University of Florida was held recently in Jacksonville. It was agreed that the Faculty would present a full day's course in any part of the state where its services were desired in an attempt to bring graduate medicine as close to the physicians as possible.

* * *

Plans are under way for the Twentieth Annual Graduate Short Course, which will be held at the George Washington Hotel in Jacksonville, June 23-28, 1952. Immediately preceding that meeting, on Thursday, Friday and Saturday, June 19-21, there will be lectures on Diagnosis. The plans are to present the subject from the clinical standpoint, the roentgenologic standpoint and the laboratory standpoint. On Saturday these three approaches to diagnosis will be correlated.

STATE NEWS ITEMS

Dr. Walter C. Jones of Miami has been named president-elect of the Southern Medical Association at its annual convention in Dallas, Texas, Nov. 5-8, 1951. Dr. Jones, who is a past president of F. M. A., will take office as president at the 1952 meeting of the Southern Medical Association in Miami.

Fifty members of the Association registered at the meeting of the Southern Medical Association held in Dallas, Texas, Nov. 5-8, 1951. They are: Drs. Richard C. Forman and James F. Lyons, Coral Gables; William D. Cawthon, DeFuniak Springs; M. Austin Lovejoy, Ft. Lauderdale; William C. Thomas, Sr., Gainesville; Sullivan G. Bedell, A. Judson Graves, James G. Lyerly, John M. McDonald, William A. Van Nortwick and Donald P. White, Jr., Jacksonville; Jere W. Annis and John W. Vaughn, Lakeland; A. Scott Turk, Lake Worth; Albert E. McQuagge, Marianna; Theodore J. Kaminski, Melbourne; Julius Alexander, Ralph F. Allen, Dewitt C. Daughtry, Herbert Eichert, M. Jay Flipse, James J. Griffitts, Walter C .Jones, Nathaniel M. Levin, R. Sam Mosley, E. Sterling Nichol, J. Randolph Perdue, Maurice Rich, George F. Schmitt, Donald W. Smith and Richard F. Stover, Miami; Abraham R. Hollender, Jean J. Perdue and Virgil H. Pieck, Miami Beach; Sanford C. Colley, Mt. Dora; Chas. J. Collins, James G. Economon, Elwyn Evans, James B. Glanton, William H. Kelley, Fred Mathers and John P. Michaels, Orlando; Arthur J. Butt, Charles W. Duval, S. Grant Holmes and Jesse N. McLane, Pensacola; Abraham J. Gorday, St. Petersburg; Chadbourne A. Andrews, Joshua C. Dickinson and Oren A. Ellingson, Tampa.

Dr. Walter C. Payne of Pensacola has been reappointed to the State Advisory Hospital Council by Governor Warren.

Dr. Frank G. Slaughter, Jacksonville, addressed a recent luncheon meeting of the Temple Sisterhood in the Temple Auditorium in Jacksonville. His subject was "The Art of Writing."

Dr. Nelson A. Murray of Jacksonville has returned to his practice after completing a study course at the Mayo Clinic in Rochester.

Dr. Thomas H. Bates of Lake City, president of the Atlantic Coast Line Railway Surgeons Association, has announced the annual meeting of the Association to be held in Charleston, S. C., Jan. 24-25, 1952. Dr. Joseph S. Stewart of Miami, F. M. A. past president, will be the guest speaker at the banquet. He will be accompanied on the program by Dr. James G. Lyerly of Jacksonville.

Dr. Stewart Thompson and Ernest Gibson attended the Conference of Editors and Business Managers of State Medical Journals, November 12 and 13, in Chicago.

Drs. Bricey M. Rhodes and James H. Pound of Tallahassee have recently returned to their practices following a two weeks visit to The Mayo Foundation in Rochester, Minn.

Dr. James R. Sory of West Palm Beach was elected chairman of the Palm Beach County Unit, American Cancer Society, at the group's annual meeting, November 16.

Dr. Egbert V. Anderson of Pensacola was elected president of the Florida State Pediatric Association at the annual meeting in Orlando, November 10 and 11. Other officers for the new year include Drs. Charlotte C. Maguire, Orlando, president-elect; J. K. David, Jr., Jacksonville, secretary-treasurer, and C. Jennings Derrick, West Palm Beach, and Fred Gachet, Lakeland, members of the executive committee.

Dr. Donald W. Smith, Miami, was named vice president of the American Association of Blood Banks at the annual meeting in Minneapolis recently.

Dr. Sidney Grau of St. Petersburg spoke before the recent annual convention of the Florida State Nurses Association in St. Petersburg. His subject was "The Care of the Cardiac Patient."

Dr. Nathan Weil, Jr., of Jacksonville spoke on "Cancer, Its Danger Signals and Cure" before the November meeting of the Jacksonville Panhellenic Association.

Dr. Robert A. Broome, Jr., Orlando, discussed heart disease research at a luncheon meeting of the Civitan Club on October 31.

Dr. George H. Garmany of Tallahassee has returned to his practice from a month's course in Encephalography in Boston.

Dr. Burns A. Dobbins of Ft. Lauderdale was guest speaker on November 8 at the luncheon meeting of the Zonta Club of Ft. Lauderdale. Dr. Dobbins spoke on "Mental Health."

Dr. Charlotte C. Maguire, Orlando, was a recent guest speaker at the monthly meeting of the Orlando Business and Professional Women's Club. Her subject was "Medicine and its Growth."

Dr. Joshua M. Price of Live Oak was recently saluted by the Suwannee Democrat for his nearly fifty years of service to his fellow men. Dr. Price began his practice of medicine in Live Oak in 1904, following his graduation from Tulane University. Currently chief of staff at the Suwannee County Hospital, he is still active in the practice of his profession.

Drs. Sullivan G. Bedell, Marlin C. Moore and Gary E. Turner, Jacksonville, participated in an institute on "Living in the Adult World" held by the Northeast Medical Health Association in November.

Members of the Florida Medical Association registered at the Clinical Congress of the American College of Surgeons in San Francisco, Nov. 5-9, 1951, were Drs. Peter A. Drohomer, Daytona Beach; Horace M. Anderson, Frederick H. Bowen, Edward Canipelli, E. Frank McCall and Wm. S. Manning, Jacksonville; John N. Sims, Sr., Live Oak; Francis N. Cooke, Miami; Frank E. Tugwell, Pensacola; Walter Rautenstrauch, Jr., St. Petersburg; Louise A. Box, Robert H. Hutchinson, and Charles F. James, Jr., Tallahassee; Wade C. Myers, Jr., Tampa; Raymond S. Roy and Vale D. Stone, West Palm Beach; and Ruth S. Jewett, Winter Park.

Drs. A. Sherrod Morrow and Joseph J. Lowenthal of Jacksonville have returned to their practices after attending a course in postgraduate medicine at the Pratt Diagnostic Clinic.

The University of Florida Midwinter Seminar in Ophthalmology and Otolaryngology will be held in Miami Beach, Jan. 14-19, 1952, for the sixth consecutive year. The Sans Souci Hotel is headquarters. The lectures on Ophthalmology will be presented on January 14, 15 and 16, and those on Otolaryngology on January 17, 18 and 19.

The Florida Society of Ophthalmology and Otolaryngology will hold its midwinter convention at the Sans Souci Hotel in Miami Beach on Jan. 16, 1952. This meeting is held annually in conjunction with the University of Florida Midwinter Seminar in Ophthalmology and Otolaryngology.

The Southern Section of the American Laryngological, Rhinological and Otological Society will hold a one day meeting at the Academy of Medicine in Atlanta, Ga., on Monday, Jan. 14, 1952. Six distinguished speakers will present timely subjects. All members of the medical profession are cordially invited to attend.

The Pan-American Congress of Oto-Rhino-Laryngology and Broncho-Esophagology will convene in Havana, Cuba, the week of Jan. 21, 1952. This meeting was planned to follow the University of Florida Midwinter Seminar in Ophthalmology and Otolaryngology, which will be held in Miami Beach the preceding week.

Dr. Gordon H. Ira of Jacksonville has returned to his practice after taking a course in New York under the auspices of the American College of Chest Physicians.

The Commissioner of Internal Revenue of the Treasury Department has ruled that contributions, payment of which were made to the American Medical Education Foundation during the year 1951, are deductible by the donors in computing their taxable net income in the manner and to the extent provided by Section 23 (o) and (q) of the Internal Revenue Code. The Commissioner's ruling was based on his finding that for the year 1951, it appeared that the Foundation was organized and operated exclusively for educational purposes. This information has been supplied the Journal by Dr. Donald G. Anderson, secretary-treasurer, the American Medical Education Foundation.

Dr. David R. Murphey, Jr., President; Dr. Eugene B. Maxwell, Chairman of the Committee on Public Relations; Dr. Stewart Thompson, Managing Director; and Tom Jarvis, Assistant Supervisor of the Bureau of Public Relations, held a conference in Tampa on Sunday, November 18, dealing with a proposed F. M. A. exhibit to be presented initially at the Florida State Fair in Tampa during February, 1952.

Dr. Theodore Norley of West Palm Beach talked and showed a film on "Congenital Dysplasia of the Hip Joint in Infants and Children" before fellow members of the West Palm Beach Rotary Club at a recent weekly luncheon.

Dr. Elwyn Evans of Orlando, President of the Florida Heart Association, and Dr. Jere W. Annis, representing the Florida Medical Association, participated in the panel discussion at an institute for employers held November 14 in Tampa by the Florida Heart Association. The institute was held to study the employment of workers with heart impairments.

Dr. John P. Michaels of Orlando has returned from a meeting of the Gynecological Visiting Society of Great Britain and Ireland and the American Gynocological Club in New Orleans.

Dr. Warren W. Quillian, Coral Gables, was installed as president of the American Academy of Pediatrics at its annual meeting in Toronto, Oct. 20-25, 1951.

Association members registered at the meeting of the American Academy of Pediatrics in Toronto, October 20-25, include: Drs. Gunnard J. Antell and Warren W. Quillian, Coral Gables; Robert R. Harriss, Hollywood; Cornelia M. Carithers, Hugh A. Carithers and Frances E. M. Read, Jacksonville; James R. Boulware, Jr., and Fred S. Gachet, Lakeland; Elias Freidus and Meyer B. Marks, Miami Beach; George W. Griffin and John D. McKey, Orlando; Henry G. Morton, Sarasota; George S. Palmer, Tallahassee; and Rita C. Marotti, Winter Haven.

Dr. Gary E. Turner, Jacksonville, participated in a panel discussion on "Freedom to Accept Self" at the November meeting of the American Association of University Women.

Dr. Marlin C. Moore of Jacksonville attended several clinics in the eastern states during October.

Dr. Chadbourne A. Andrews of Tampa has been reappointed a member of the Council of the Southern Medical Association representing Florida.

Dr. Walter W. Sackett, Jr., Miami, was elected vice-chairman of the section on General Practice of the Southern Medical Association at its Dallas meeting in November.

Dr. Donald W. Smith of Miami was elected secretary of the section on Surgery of the Southern Medical Association at its annual meeting in November.

Dr. Claude G. Mentzer of Miami was elected vice-chairman of the section on Proctology at the annual meeting of the Southern Medical Association.

Dr. Jean J. Perdue of Miami Beach was elected chairman of the Women Physicians of the Southern Medical Association at the meeting in Dallas.

Dr. Knox E. Miller of Jacksonville, assistant state health officer of the Florida State Board of Health, attended the two day Medical Civil Defense Conference held in Chicago in early November. Dr. Miller represented Dr. James L. Borland, chairman, F. M. A. Committee on Emergency Medical Service, and Dr. Wilson T. Sowder, state health officer.

Dr. Robert V. Artola of West Palm Beach was recently elected president of the Inter-American Club, an organization in the Palm Beaches for the promotion of international relations with Latin America.

Miami has been selected as host city for the 1954 A. M. A. Clinical Session, November 30-December 3.

In January, the Association's 1952 Florida Medical Directory is scheduled for mailing. It will be the fifteenth edition. One copy will be mailed to each member of the Association without charge. Members desiring additional copies or others who wish the publication should forward a remittance of $2.00 to Box 1018, Jacksonville.

Medical Officers Returned

Dr. Francis N. Cooke, who entered military service on Nov. 24, 1948, was released from active duty on Oct. 1, 1951 with the rank of Lieutenant Colonel. His address is Box 2318, Miami, Florida.

BIRTHS AND DEATHS

Births

Dr. and Mrs. Joseph W. Taylor, Jr., of Tampa announce the birth of a daughter, Janet Stuart.

Dr. and Mrs. James C. Lanier of Jacksonville announce the birth of a son, James C. Lanier, IV, on Nov. 1, 1951.

Deaths — Members

Dickerson, Lucien B., Clearwater.....Nov. 3, 1951
Mount, Louis B., St. Petersburg.....Dec. 10, 1951

Deaths — Other Doctors

Freney, John D., Waterbury, Conn.....Aug. 11, 1951
Taylor, Quintard, White Sulphur Springs, W. Va. Aug. 30, 1951

NEW MEMBERS

The following doctors have joined the State Association through their respective county medical societies.

Barrow, George W., Winter Garden
Bleakney, Rex M., Orlando
Hicks, Lawrence, (Col.) Pensacola
Tomson, Nathaniel C., St. Petersburg
Townes, Andrew W., Jr., Orlando

WANTED — FOR SALE

Advertising rates for this column are $5.00 per insertion for ads of 25 words or less. Add 20c for each additional word.

FOR SALE: Eye equipment. Slit lamp, lensometer, contact lens set, other minor instruments, some office equipment and ear, nose and throat items. Write William H. Turnley, M.D., 1206 E. Ocklawaha Ave., Ocala, Fla.

FOR SALE: New modern hospital furniture and fixtures. Write 69-59, P. O. Box 1018, Jacksonville, Fla.

WANTED: Association with group practice or with busy general practitioner in central or southern Florida. I have excellent background and training. Personal interview preferred. Write 69-60, P. O. Box 1018, Jacksonville, Fla.

FOR SALE: X-ray equipment and practice. North Florida city. Retiring for health reasons. Excellent location serving large territory. Nearest competition fifty miles. Will sacrifice. Write P. O. Box 667, Lake City, Fla.

COMPONENT SOCIETY NOTES

Alachua

At the regular November meeting of the Alachua County Medical Society, Dr. Charles Pinkoson of Gainesville led a discussion on the use of ACTH and cortisone in treating eye conditions.

Duval

The Duval County Medical Society has accepted an invitation from the medical staff of the local Naval Air Station to be their guests for the January meeting at the Naval Hospital.

Hillsborough

The theme of the joint meeting of the Hillsborough County Medical Association and the Pinellas County Medical Society on Nov. 6, 1951, in Tampa, was medical public relations. Heading the program were Drs. David R. Murphey, Jr., F. M. A. president, and Eugene B. Maxwell, chairman of the F. M. A. committee on public relations, both members of the Hillsborough County Medical Association. The program was in charge of Dr. Wesley W. Wilson, program chairman. Included on the program from the Pinellas Society were Drs. John P. Rowell, president, and Francis H. Langley, both of St. Petersburg. Also in attendance was Tom R. Jarvis, assistant supervisor, F. M. A. Bureau of Public Relations.

Lake

The Lake County Medical Society is sponsoring a series of thirteen programs over radio station WLBE, Leesburg. Each program presents organ selections from master composers of the past each of whom had a particular health problem. Commentary accompanying the music indicates how these health problems might have been relieved by modern medical knowledge.

Leon-Gadsden-Liberty-Wakulla-Jefferson

The Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society held its final quarterly meeting for 1951 on October 18 at the Sawano Country Club in Quincy. The scientific program was headed by an address on "Vasodilator Drugs" by Dr. Arthur P. Richardson, Chairman, Department of Pharmacology, Emory University School of Medicine. Following Dr. Richardson's talk, a film on "Gastrointestinal Carcinoma" was presented.

Marion

Guest speaker at the regular monthly meeting of the Marion County Medical Society on Nov. 27, 1951, was Dr. Lorenzo L. Parks of Jacksonville, Director of the Bureau of Preventable Diseases of the Florida State Board of Health.

During the 1951 football season, the society performed a valuable public service by having one of its members attend each of the games of the local high school. This made certain that there was always a doctor available to render first aid and such other medical help as required.

Pinellas

Beginning in January, the Pinellas County Medical Society in conjunction with the St. Petersburg Times, will launch a novel program designed to present public information on medical and health problems. Members of the society will participate in a series of weekly forums wherein they will lecture on and answer previously submitted questions on such topics as the common cold, heart conditions, mental health, and many others. Present plan is to present one program each week during the months of January, February and March. Lectures are to be given in a down town church auditorium. The public has been given an opportunity to help select the topics for discussion through the medium of a medical form blank published in previous issues of The Times.

OBITUARIES

Joe Ivey Turberville

Dr. Joe Ivey Turberville of Century met death in an automobile accident at Grove Hill, Ala., on Oct. 20, 1951. He was 48 years of age. Interment was in Pensacola.

Although he had lived most of his life in Century, Dr. Turberville was born in Peterman, Ala. He attended the Escambia County schools, the Gulf Coast Military Academy and the University of Alabama. He received his medical training at Vanderbilt University and at the Medical College of Virginia, where he was awarded the degree of Doctor of Medicine in 1929. He then served an internship at the Tampa Municipal Hospital in Tampa.

Upon the completion of his intern training, Dr. Turberville became associated with his father, the late Dr. John Samuel Turberville, in operating the Turberville Hospital in Century. Later, his brother, Dr. John Killiebrew Turberville joined them, and after the father was killed in a similar tragedy in 1945, the two brothers continued to operate the hospital.

Locally, Dr. Turberville was a member of the Century Masonic Lodge 243 and a Shriner. He was a member of the Methodist Church. His medical fraternity was Phi Chi.

A past president of the Escambia County Medical Society, Dr. Turberville was a member of the Florida Medical Association and the American Medical Association. He was also a fellow of the American College of Surgeons.

He is survived by his widow, Mrs. Ellen Burns Turberville; four daughters, Virginia, Dorothy, Elizabeth and Jo Ellen; his mother, Mrs. Julia Turberville, all of Century; four sisters, Miss Kathleen Turberville of Tampa, Mrs. Fred Johnson of Century, Mrs. John W. Holmes of Furman, Ala., and Mrs. C. S. Peters of Mobile, Ala.; and two brothers, Dr. John K. Turberville and William G. Turberville of Century.

John Killiebrew Turberville

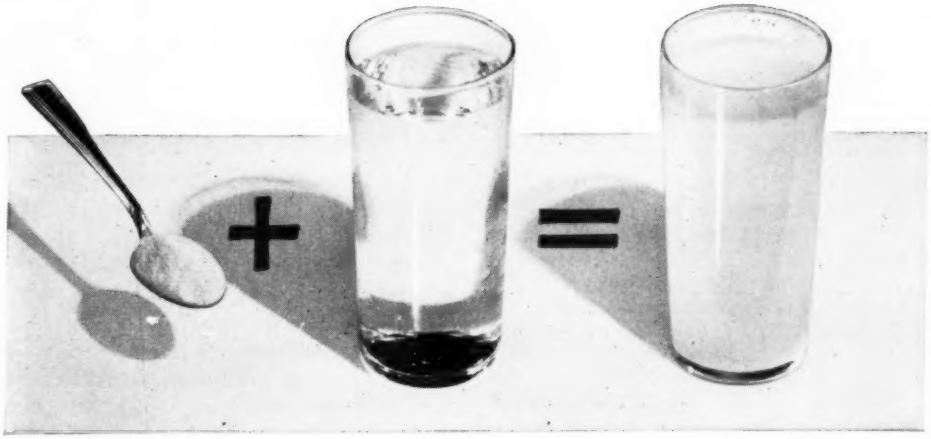
Dr. John Killiebrew Turberville of Century died suddenly of a heart attack while at his desk on Nov. 1, 1951. He was 46 years of age. Funeral services were held in Century with interment in Pensacola.

Born at Snow Hill, Ala., Dr. Turberville moved to Century shortly afterward. He attended the Escambia County public schools and received his premedical training at Howard College and the University of Alabama. The Tulane University of Louisiana School of Medicine awarded him the degree of Doctor of Medicine in 1935. After interning at Touro Infirmary in New Orleans, he entered the practice of medicine at the Turberville Hospital in Century with his father, the late Dr. John Samuel Turberville, and his brother, the late Dr. Joe Ivey Turberville, the latter preceding him in death by only twelve days. His death left the hospital and Century without a physician.

(Continued on page 506)

Normohydration

FOR BOWEL REGULATION



Typically, the constipated stool is dehydrated, whereas the diarrheal stool or that induced by salines and irritants is hyperhydrated, containing free water.

When Metamucil is employed for the management of constipation, it is mixed in a full glass of cool liquid. The ingested liquid containing the mucilloid promotes normohydration.

METAMUCIL® is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. G. D. Searle & Co., Chicago 80, Illinois.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

(*Continued from page 504*)

Dr. Turberville was a member of the Escambia County Medical Society, the Florida Medical Association, and the American Medical Association, and a fellow of the American College of Surgeons. He was a Mason, a Shriner and a member of the Lions Club.

Surviving are the widow, Mrs. Veronica Turberville; three sons, Jack, John Samuel, and John Killiebrew, Jr.; one daughter, Veronica; his mother, Mrs. Julia Turberville; one brother, William G. Turberville, all of Century; and four sisters, Miss Kathleen Turberville of Tampa, Mrs. Fred Johnson of Century, Mrs. John W. Holmes of Furman, Ala., and Mrs. C. S. Peters of Mobile, Ala.

Lucien Brown Dickerson

Dr. Lucien Brown Dickerson of Clearwater died on Nov. 3, 1951, at his fishing camp in Homosassa Springs. He was 75 years of age.

The son of Newton and Anna Watson D'ckerson, Dr. Dickerson was born in Nicholasville, Ky., on June 5, 1876. After completing his high school education there, he entered Center College and was graduated in 1897. He received the degree of Doctor of Medicine from the Univeristy of Louisville School of Medicine in 1903.

Dean of Clearwater physicians, this pioneer surgeon entered the private practice of medicine in Clearwater in 1904. By bicycle he covered the territory from Dunedin to Largo until he acquired an automobile in 1907. In 1916 he delivered the first baby born at Morton Plant Hospital. He performed the first major operation there, on Morton F. Plant's son, and was the first chief of staff of the hospital. For many years he served as house doctor for the Belleview Biltmore Hotel

Allen's Invalid Home
MILLEDGEVILLE, GA.
Established 1890
For the treatment of
NERVOUS AND MENTAL DISEASES
Grounds 600 Acres
Buildings Brick Fireproof
Comfortable Convenient
Site High and Healthful
E. W. ALLEN, M.D., *Department for Men*
H. D. ALLEN, M.D., *Department for Women*
Terms Reasonable

S. A. Kyle — Funeral Director
MEMBER National Selected Morticians BY INVITATION
17 WEST UNION STREET
JACKSONVILLE 2, FLORIDA
Phones 5-3766 5-3767

MIAMI MEDICAL CENTER
P. L. DODGE, M. D.
Medical Director and President
1861 N. W. South River Drive
Phones 2-0243 — 9-1448

A private institution for the treatment of nervous and mental disorders and the problems of drug addiction and alcoholic habituation. Modern diagnostic and treatment procedures — Psychotherapy, Insulin, Electroshock, Hydrotherapy, Diathermy and Physiotherapy when indicated. Adequate facilities for recreation and out-door activities.

Information on request
Member American Hospital Association

at Belleair and was also county health doctor. Dr. Dickerson played a leading role in the early development of the section and served as physician to many of Clearwater's pioneer families. He was a charter member of the Clearwater Country Club and the Clearwater Yacht Club, and was a past commander of the Turner-Brandon Post No. 7, American Legion of Clearwater.

In August 1917 Dr. Dickerson enlisted in World War I, serving two years, part of which time was spent in France with the Combat Field Hospital Division. This motor unit had the first field hospital mobile unit. After the war, he returned to Clearwater, where he continued to practice until 1945, when he retired following his wife's death and because of ill health. Thereafter he spent much of his time at his Homosassa residence.

An ardent sportsman, Dr. Dickerson played professional baseball in the Blue Grass League for three years prior to studying medicine. At one time he was champion of the Florida Medical Association golf team and of the Clearwater Country Club.

Dr. Dickerson helped to organize the Pinellas County Medical Society and was its first president. For thirty-two years he was an active member of the Florida Medical Association and for five years an honorary member. He also held membership in the American Medical Association.

Survivors include two brothers, Woodson Dickerson of Orlando and Julian Dickerson of Nicholasville, Ky.; two sisters, Mrs. Scott Mathews of Nicholasville and Mrs. J. H. Marriott of New Orleans; three nieces, Mrs. Howard C. Van Hyning, Mrs. George Dalby and Mrs. Robert B. Swearingen, all of Clearwater, and other nieces in Kentucky.

Cook County Graduate School of Medicine
ANNOUNCES CONTINUOUS COURSES

SURGERY—Intensive Course in Surgical Technic, Two Weeks, starting January 21, February 4, February 18. Surgical Technic, Surgical Anatomy & Clinical Surgery, Four Weeks, starting March 3, June 2. Surgical Anatomy & Clinical Surgery, Two Weeks, starting March 17, June 16. Surgery of Colon & Rectum, One Week, starting March 3, April 7. Gallbladder Surgery, Ten Hours, starting April 21. Basic Principles in General Surgery, Two Weeks, starting March 31. Breast & Thyroid Surgery, One Week, starting June 23. Esophageal Surgery, One Week, starting June 23. Thoracic Surgery, One Week, starting June 2. Fractures & Traumatic Surgery, Two Weeks, starting February 4.

GYNECOLOGY—Intensive Course, Two Weeks, starting February 18, March 17. Vaginal Approach to Pelvic Surgery, One Week, starting March 3, March 31.

OBSTETRICS—Intensive Course, Two Weeks, starting March 3, March 31.

MEDICINE—Intensive General Course, Two Weeks, starting May 5. Electrocardiography & Heart Disease, Two Weeks, starting March 17. Gastroenterology, Two Weeks, starting May 19. Hematology, One Week, starting June 16.

UROLOGY—Intensive Course, Two Weeks, starting April 28. Ten Day Practical Course in Cystoscopy starting January 21, February 18 and every two weeks.

ROENTGENOLOGY—Two Week Lectures and Clinical Courses every month.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES

Teaching Faculty:
Attending Staff of Cook County Hospital

Address: Registrar, 427 South Honore Street, Chicago 12, Illinois

BISCAYNE HOSPITAL
6339 Biscayne Blvd.
MIAMI 38, FLORIDA

Members of the Dade County Medical Association are acquainted with the high type of service rendered.

David Collins, Superintendent

Registered, American Medical Association

Phone 7-4544

MIAMI RETREAT SANATORIUM
FOUNDED 1927
For Nervous and Mental Disorders, Alcohol and Drug Addiction

STAFF OF EIGHT NEUROPSYCHIATRISTS
New X-Ray Diagnostic Treatment Facilities
Comfortable AIR-CONDITIONED rooms, suites
79TH STREET AT MIAMI AVENUE
MIAMI 38, FLORIDA
Phone 7-1824

BRAWNER'S SANITARIUM
Established 1910

SMYRNA, GEORGIA
(Suburb of Atlanta)

For Nervous and Mental Disorders
Drug and Alcohol Addiction
Electro-Shock in selected cases

JAMES N. BRAWNER, M.D., Medical Director
ALBERT F. BRAWNER, M.D., Department for Men
JAMES N. BRAWNER, JR., M.D., Department for Women

CONVENTION PRESS

218 WEST CHURCH STREET
JACKSONVILLE
FLORIDA

Commercial and
Publication
Printing

WOMAN'S AUXILIARY

TO THE
FLORIDA MEDICAL ASSOCIATION

OFFICERS

MRS. C. ROBERT DEARMAS, President.....*Daytona Beach*
MRS. HERSCHEL G. COLE, President-elect.....*Tampa*
MRS. JULIUS C. DAVIS, 1st Vice Pres.....*Quincy*
MRS. FRANCIS H. LANGLEY, 2nd Vice Pres...*St. Petersburg*
MRS. THOMAS C. KENSATON, 3rd Vice Pres.....*Cocoa*
MRS. C. RUSSELL MORGAN, JR., 4th Vice Pres.....*Miami*
MRS. ALBERT G. LOVE, IV, Recording Sec'y....*Gainesville*
MRS. JOEL V. MCCALL, JR., Correspd. Sec'y.*Daytona Beach*
MRS. SAMUEL S. LOMBARDO, Treasurer.....*Jacksonville*

COMMITTEE CHAIRMEN

MRS. CHARLES F. HENLEY, Finance.....*Jacksonville*
MRS. RICHARD F. STOVER, Today's Health.....*Miami*
MRS. MERRITT R. CLEMENTS, Legislation.....*Tallahassee*
MRS. JAMES L. ANDERSON, Public Relations...*Coral Gables*
MRS. DAVID R. MURPHEY, JR., Reference.....*Tampa*
MRS. DAVID W. GODDARD, Program.....*Daytona Beach*
MRS. H. MILTON ROGERS, Bulletin.....*St. Petersburg*
MRS. FRANK G. SLAUGHTER, Historian.....*Jacksonville*
MRS. LEE E. PARMLEY, Parliamentarian.....*Winter Haven*
MRS. ALFONSO F. MASSARO, Revisions.....*Tampa*
MRS. JOHN E. MAINES, JR., Stu Loan Fund....*Gainesville*
MRS. NELSON A. MURRAY, Medaux.....*Jacksonville*
MRS. ALPHONSUS M. MCCARTHY, Hospitality *Daytona Beach*

Assignment in April

In every organization there comes a season of flowering in the field of effort which had to be ploughed and worked by many who went before, without whom there could be no blossoming if they had not planted and nurtured the ideas.

Because of those who believed in the organization, we have growing unity throughout the state.

Because of those who believed in education, we have been able to institute "work-shop" sessions at the district meetings, and will see the introduction of an Auxiliary Handbook this year.

Because of those who sensed the need of good public relations we have an increasing number of alert, informed doctors' wives taking part in virtually every civic effort.

And, last but not least, because we have steadfastly served the Doctor we have earned the confidence and respect of the Medical Association to the extent that we have been asked to provide the entertainment for the Association following the program at the annual dinner Tuesday night, April 29, 1952. This means providing a program of entertainment and fun which will appeal to all but which will cost nothing inasmuch as neither the Florida Medical Association nor the Auxiliary has funds for this purpose.

However, since the tastes throughout the state vary, as well as the talent which we must provide from within our own groups, I am asking each county auxiliary to cooperate with me in finding the best talent the county society or the auxiliary has to offer and submit the name to me which is selected by the majority approval of that county.

Dr. David Murphey has appointed a chairman from the Association to work with us on this but before I can work with him I must have suggested talent material.

The need for this type of congenial fun has long been felt in order to create a closer feeling throughout the state among the members who attend the meeting.

I trust and hope that each county auxiliary will welcome this idea as enthusiastically as I did in assuring Dr. Murphey that it would be a pleasure since it is one of the first objectives of our organization to assist in the entertainment at conventions, and to promote mutual understanding among physicians' families.

Mrs. C. Robert DeArmas, President.

BOOKS RECEIVED

The Scottish Chemist's Index of Modern Remedies 1951. By Alexander Murray, M.P.S., Proprietor, and Scott Murray, Editor. Pp. 116. Price, $2.00. Glasgow, Scotland, The Scottish Chemist, 1951.

Designed to prove a valuable reference to all who are engaged in medicine and pharmacy, this first North American Edition of the Index of Modern Remedies places before these professions a concise listing of ethical products available in the United States, Canada and Great Britain. Products listed are not meant to take the form of a complete dictionary, but rather to serve as a guide to alternate prescribing in any one particular field. While many other products are available, their active constituents, generally, are embodied in those detailed. The address for the United States and Canada is Box No. 275, Terminal "A," Toronto, Ontario, Canada.

The Rockefeller Foundation Directory of Fellowship Awards for the Years 1917-1950. With an Introduction by Chester I. Barnard, President of the Foundation. 49 West 49th Street, New York, N. Y. Pp. 286.

The granting of fellowships has always been one of the primary interests of The Rockefeller Foundation. It has for many years operated through five divisions: International Health Division; Medical Sciences; Natural Sciences; Social Sciences; and Humanities. Some idea of the extent of the Foundation's fellowship program and of the positions now held by the fellows themselves can be gained from this directory, listing the men and women who at some time in the past thirty-five years held Foundation fellowships.

In the Medical Sciences, as stated in the introduction, there was from the start an insistent emphasis on the promotion of research. Also present has been the idea of multiplying centers from which medical skill, acquired by physicians through their fellowship training under famous medical specialists, could radiate into new areas. Former fellows in medicine in many instances have qualified for leading roles in the creation of strong outposts in the battle against disease.

Advertisement

From where I sit
by Joe Marsh

"Fireman, Save My—"

Volunteer Chief Wilson was telling a few of us about some of the extra jobs firemen do. Like rescuing tree-climbing cats—and kids who get stuck almost any place.

"Take last week," he says. "Mrs. Campbell called up from Balesville where she was shopping. Asked if we'd mind going to her house and see if she'd left the fire on under the potatoes!

"*Dusty Jones drives the five miles to Campbell's place, and it turns out she* had *left that fire on. But don't get the idea we're complaining about those odd jobs. We're always glad to cooperate anytime we possibly can.*"

From where I sit, these boys—and volunteer firemen everywhere—stand for something mighty important to this nation. Most things seem to work out better when they're done *voluntarily*. Whether it's a ballplayer or a beverage you're choosing, whether it's the way to run a newspaper or how to practice a profession, it's the individual freedom of choice that has made America great.

Joe Marsh

Copyright, 1951, United States Brewers Foundation

Announcing The Fifteenth Annual Meeting of

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

Conference Headquarters - Municipal Auditorium - March 10-13, 1952

GUEST SPEAKERS

Leo V. Hand, M.D., Boston, Mass.
Anesthesiology

John H. Lamb, M.D., Oklahoma City, Okla.
Dermatology

J. Arnold Bargen, M.D., Rochester, Minn.
Gastroenterology

Ralph A. Reis, M.D., Chicago, Ill.
Gynecology

Charles A. Doan, M. D., Columbus, Ohio
Medicine

John P. Merrill, M. D., Boston, Mass.
Medicine

William Parson, M.D., Charlottesville, Va.
Medicine

Jacob E. Finesinger, M.D., Baltimore, Md.
Neuropsychiatry

Leroy A. Calkins, M.D., Kansas City, Kan.
Obstetrics

John H. Dunnington, M.D., New York, N. Y.
Ophthalmology

Edward L. Compere, M.D., Chicago, Ill.
Orthopedic Surgery

Hayes Martin, M.D., New York, N. Y.
Otolaryngology

Oscar B. Hunter, Sr., M.D., Washington, D. C.
Pathology

Margaret M. Nicholson, M.D., Washington, D. C.
Pediatrics

Paul C. Swenson, M.D., Philadelphia, Pa.
Radiology

Richard B. Cattell, M.D., Boston, Mass.
Surgery

Claude F. Dixon, M.D., Rochester, Minn.
Surgery

Frank C. Hamm, M.D., Brooklyn, N. Y.
Urology

LECTURES, SYMPOSIA, CLINICOPATHOLOGIC CONFERENCES, ROUND-TABLE LUNCHEONS, SURGICAL AND MEDICAL PROCEDURES IN COLOR TELEVISION, TECHNICAL EXHIBITS AND MEDICAL MOTION PICTURES.
(All-inclusive registration fee — $20.00)

THE POSTCLINICAL TOUR TO MERIDA, MEXICO CITY, CUERNAVACA, TAXCO, AND ACAPULCO — MARCH 15-29

For information concerning the Assembly meeting and the tour write Secretary, Room 103, 1430 Tulane Avenue, New Orleans 12, La.

HILL CREST SANITARIUM

FOR NERVOUS AND MENTAL DISEASES AND ADDICTIONS

Insulin and Electro-Shock Therapy Used in Selected Cases. Gradual Reduction Method Used in the Treatment of the Addictions.

Thoroughly modern in architecture and construction. Eight departments — affording proper classification of patients. All outside rooms attractively furnished. Several bathrooms and rooms with private bath on each floor. Also a spacious sun parlor in each department. Located on the crest of Higdon Hill, 1,050 feet above sea level, overlooking the city, and surrounded by an expanse of beautiful woodland. Ample provision made for diversion and helpful occupation. Adequate night and day nursing service maintained. Catalogue sent on request.

James A. Becton, M. D., Physician-in-charge — James Keene Ward, M. D., Associate Physician

P. O. Box 2896, Woodlawn Station, Birmingham, Alabama — **Phones 9-1151 and 9-1152**

Statistics for Medical Students and Investigators in the Clinical and Biological Sciences. By Frederick J. Moore, M.D., Frank B. Cramer, B.A., and Robert G. Knowles, M.S. Pp. 113; figures 11; tables 16. Price, $3.25. Philadelphia, The Blakiston Company, 1951.

This text and reference, which is an introduction to study of the behavior of quantities, is written primarily for medical students, research workers in medicine and the biological sciences, and practitioners who wish to understand and interpret more readily the commonly used statistical forms found in scientific and medical research reports. It helps them understand and evaluate, not merely accept, statistical findings. Not only is it extremely valuable in estimating the value of research reports, but it is also a helpful aid in preparing such reports. It presents in ordinary language the essential mathematical reasoning underlying common statistical procedures. Examples are chosen entirely from the field of medicine and presuppose only the mathematics which the physician or student would acquire naturally in premedical or medical training. Each chapter contains tables, illustrative figures, an introduction and a summary.

Biological Antagonism, the Theory of Biological Relativity. By Gustav J. Martin, Sc.D. Pp. 516, figs. 64, tables 44. Price, $8.50. Philadelphia, The Blakiston Company, 1951.

Released for publication in November, this book offers a thorough, complete, yet concise, presentation of the theory of biologic relativity — that "general law" which underlies all biologic activity and is fundamental to the resolution of all problems in biology.

The author reviews biologic antagonism as reflected in natural and synthetic displacing agents, covers antagonism as seen in the fields of amino acids, purines, pyrimidines, vitamins, hormones, minerals, and as it forms the basis of immunology, pharmacology, and chemotherapy. Finally, he presents the concept of biologic relativity based upon extensive study of these biologic antagonisms.

Research workers in immunology, pharmacology, chemotherapy, medicine, and the entire field of biology will find the 1,900 references throughout the book extremely helpful. They represent a comprehensive survey of all the literature in the field.

RESERVE THESE DATES

APRIL 27, 28, 29, 30, 1952

FOR THE CONVENTION IN

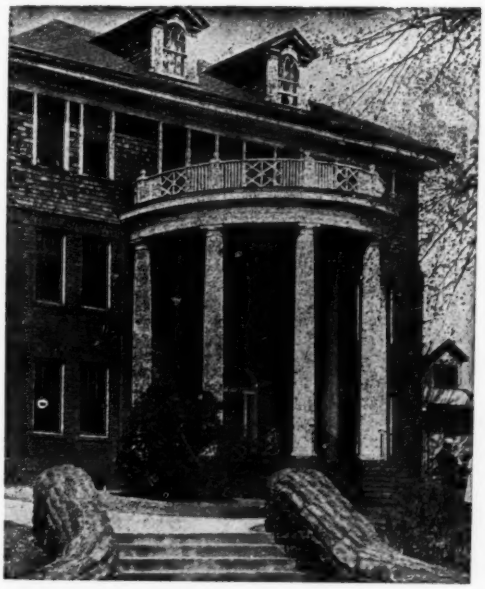
HOLLYWOOD

HIGHLAND HOSPITAL, INC.

FOUNDED IN 1904

Asheville, North Carolina

AFFILIATED WITH DUKE UNIVERSITY



A non-profit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.

The Hospital is located in a sixty-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and nervous rehabilitation.

The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

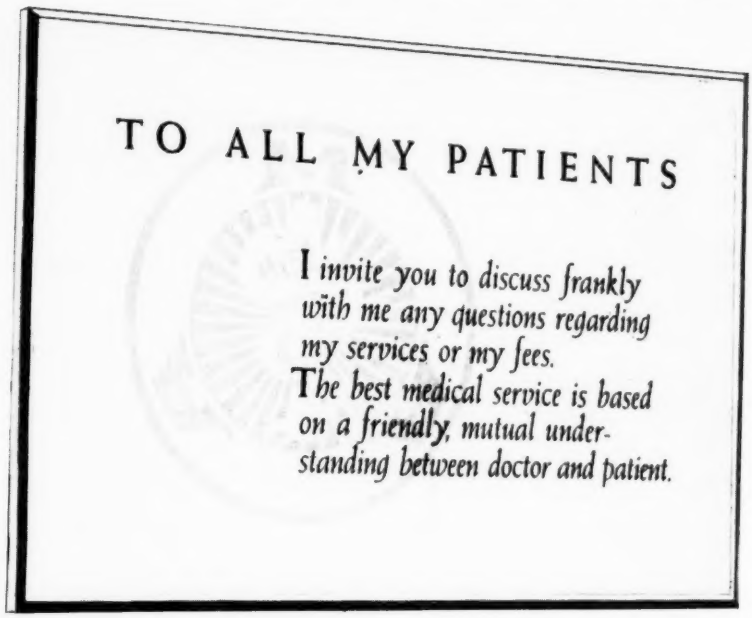
R. CHARMAN CARROLL, M.D.,
Diplomate in Psychiatry
Medical Director

ROBT. L. CRAIG, M.D.,
Diplomate in Neurology and Psychiatry
Associate Director

announcing

A NEW PUBLIC RELATIONS AID

. . . to boost your PR rating


TO ALL MY PATIENTS
I invite you to discuss frankly with me any questions regarding my services or my fees.
The best medical service is based on a friendly, mutual understanding between doctor and patient.

NEW OFFICE PLAQUE

- ✔ **dark brown lettering on buff**
- ✔ **harmonizes with any office decor**
- ✔ **measures 11½ by 7¾ inches**
- ✔ **for desk or wall**
- ✔ **laminated plastic finish**

As you know, a physician's best public relations is carried on right in his own office. Here the physician gets acquainted with his patients . . gives them a chance to talk over problems . . . builds a feeling of mutual understanding between patient and doctor

Your American Medical Association has designed an attractive new office plaque to be displayed prominently on an office desk or wall. This is a graphic invitation to patients to talk over professional services and fees. Patients like to ask questions, but often are hesitant to do so. This plaque will open the door to better relations with your patients. Order one today.

PRICE
$1
POSTPAID

Order Department
AMERICAN MEDICAL ASSOCIATION
535 North Dearborn Street
Chicago 10, Illinois